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United States
Department of
Agriculture

Soil Conservation
Service
Beltsville, Maryland

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1979 Annual Technical Report of the National Plant Materials Center

A Summary of the Activities of Calendar Year 1979

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1979 ANNUAL TECHNICAL REPORT

of the

NATIONAL PLANT MATERIALS CENTER

A SUMMARY of the ACTIVITIES

of CALENDAR YEAR 1979

SOIL CONSERVATION SERVICE
U.S. DEPARTMENT of AGRICULTURE
BELTSVILLE, MARYLAND

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National Plant Materials Center
Soil Conservation Service
United States Department of Agriculture

Introduction

1979 marked the 41st year of service by the National Plant Materials Center to the Soil Conservation Service plant materials program as an introduction, exchange, and observation center for grasses, legumes, trees, and shrubs with potential value in soil and water conservation. All plant materials from foreign countries used in the SCS are processed through this center for initial seed increase and observation. An average of 300 new plant accessions per year are introduced through this center and distributed to 21 field plant materials centers throughout the United States, including Alaska, Hawaii, and Puerto Rico.

Plants distributed from this center through the 21 field plant centers eventually are used to help the farmers, ranchers, cities, and urban communities solve the problems of watershed protection, gully control, shelter belts, wind-erosion control, wildlife borders, and surface mine-land reclamation.

Purpose and Objectives

The National Plant Materials Center at Beltsville, Maryland, is the central facility for assembling, increasing, and distributing plant materials from foreign sources that may be useful in helping to solve conservation problems established in the long-range program of the field plant materials centers.

Functions

-- Requests, receives, assembles, and, as needed, increases seed and vegetative materials to meet requests of various field PMC's according to priorities established in the long-range program of each PMC.

-- Works closely with the Plant Introduction Office, Germplasm Resources Laboratory, SEA, at Beltsville, Maryland, to obtain plant materials needed to fill requests of field PMC's.

-- Serves as coordinator for the acquisition of all accessions from regional plant introduction stations for use by field PMC's.

-- Works closely with the Plant Introduction Office, Germplasm Resources Laboratory, SEA, to insure compliance with quarantine restrictions governing the flow of plant materials in and out of the United States.

-- Prepares background information about new plants and other plant materials assembled for distribution.

-- Assembles and distributes seed and plants to meet foreign request.

-- Acts as the coordinating office for plant accessioning and plant performance summaries for the plant materials automatic data processing (ADP) storage and retrieval system.

-- Conducts special projects to help solve problems common to all or several PMC's, such as storage of seed and plants and development of propagation techniques.

-- Maintains contacts for authoritative identification of plant specimens submitted by SCS personnel.

-- Provides for the increase of plant materials for final testing if a field PMC is unable to produce adequate amounts.

Administration

The center is administered by the U. S. Department of Agriculture, Soil Conservation Service. Direction for the operation of the center is provided by an advisory committee appointed by the SCS Administrator. It consists of the director of the Ecological Sciences and Technology Division, who serves as chairman; one state conservationist; one technical service center plant materials specialist; and the director of the Beltsville Agricultural Research Center. The committee meets at least once a year with the NPMC manager and the chief plant materials specialist to provide guidance to the center.

National Plant Materials Center 1979 Advisory Committee:

Thomas N. Shiflet
Director, Ecological Sciences and Technology Division

Gerald R. Calhoun
State Conservationist, Maryland State Office

P. A. Putnum
Acting Director, Beltsville Agricultural Research Center

W. Curtis Sharp
Plant Materials Specialist, Northeast Technical Service
Center

Advisor to NPMC:

Robert S. MacLauchlan
Chief Plant Materials Specialist, Ecological Sciences
and Technology Division

Personnel

Michael McCrary	Manager
William H. Fry	Soil Conservationist
John A. Oyler	Soil Conservationist
Valorie J. Butler	Secretary
Richard C. Russell	Biological Technician
Robert A. Hood	Tractor Operator
Shawn D. Conrad	Biological Aid (Summer)
Kevin Dugard	Biological Aid (Summer)

Employee Development

Pesticide Applicator Certification

John A. Oyler

SCS Secretary Workshop

Valorie J. Butler

Employee Recognition

Letter of Appreciation

Valorie J. Butler
William H. Fry
John A. Oyler

Physical Features

Location:

The center is located on the Beltsville Agricultural Research Center, Beltsville, Maryland. This location is approximately fifteen miles east of the District of Columbia and twenty miles west of Baltimore, Maryland.

Although surrounded by the densely populated metropolitan Washington area, the center's location within the 7,500-acre Agriculture Research Center offers isolation from the mainstream. The entire Agriculture Research Center consists of predominantly hardwood forest with numerous openings and fields.

Climate:

The NPMC is located in a humid, continental-type climate, primarily due to the typical west to east atmospheric flow and 43 inches average annual rainfall. Summer weather is dominated by large masses of warm, moist air spreading northward from the south and southwest. The winter weather is rapidly changed from day to day by alternating high and low pressure systems in the west-east flow.

Temperatures of 90°F or higher occur 40 days per year on the average and 32°F or lower occur on 119 days per year. The average annual precipitation is evenly distributed in a typical year. Summer rainfall of significance is generally from thunderstorms or the occasional tropical storm or hurricane that affects the weather.

The growing season averages 162 days with 50 percent probability that it will begin on April 29 and end of October 9.

Major Land Resource Area:

Although the center lies within the Northern Coastal Plain Land Resource Area, it is very near the separation point between the Northern Coastal Plain LRA and the Northern Piedmont LRA.

Soils and Topography:

Soils on the center consist mostly of sandy loams and loamy sands with areas of silt loam and clay. Complete soils descriptions and soils map are displayed on page 11. The land varies from gently

sloping to moderately sloping. Conservation practices are necessary to prevent erosion. Wind erosion can be severe on the loamy sands unless adequate cover is provided.

Land Area:

The NPMC consists of 140 acres of SCS-owned land. Approximately 80 acres are considered tillable. The majority of the remaining land is in bottomland hardwood forest with a small area of upland hardwood-pine forest. Included in the acreage is a lake covering 17 surface acres. This lake was built about 1940 for irrigation purposes. Beck Branch, a small, year-round stream feeds the lake and meanders through the center's bottomland forest.

Deer, small game, and waterfowl are abundant on the center. Land, not in cultivation, is managed for wildlife according to a conservation plan. Deer and rabbits pose serious threats to observation rows, especially legumes. Groundhogs (woodchucks) cause occasional damage to fields due to their burrowing habit.

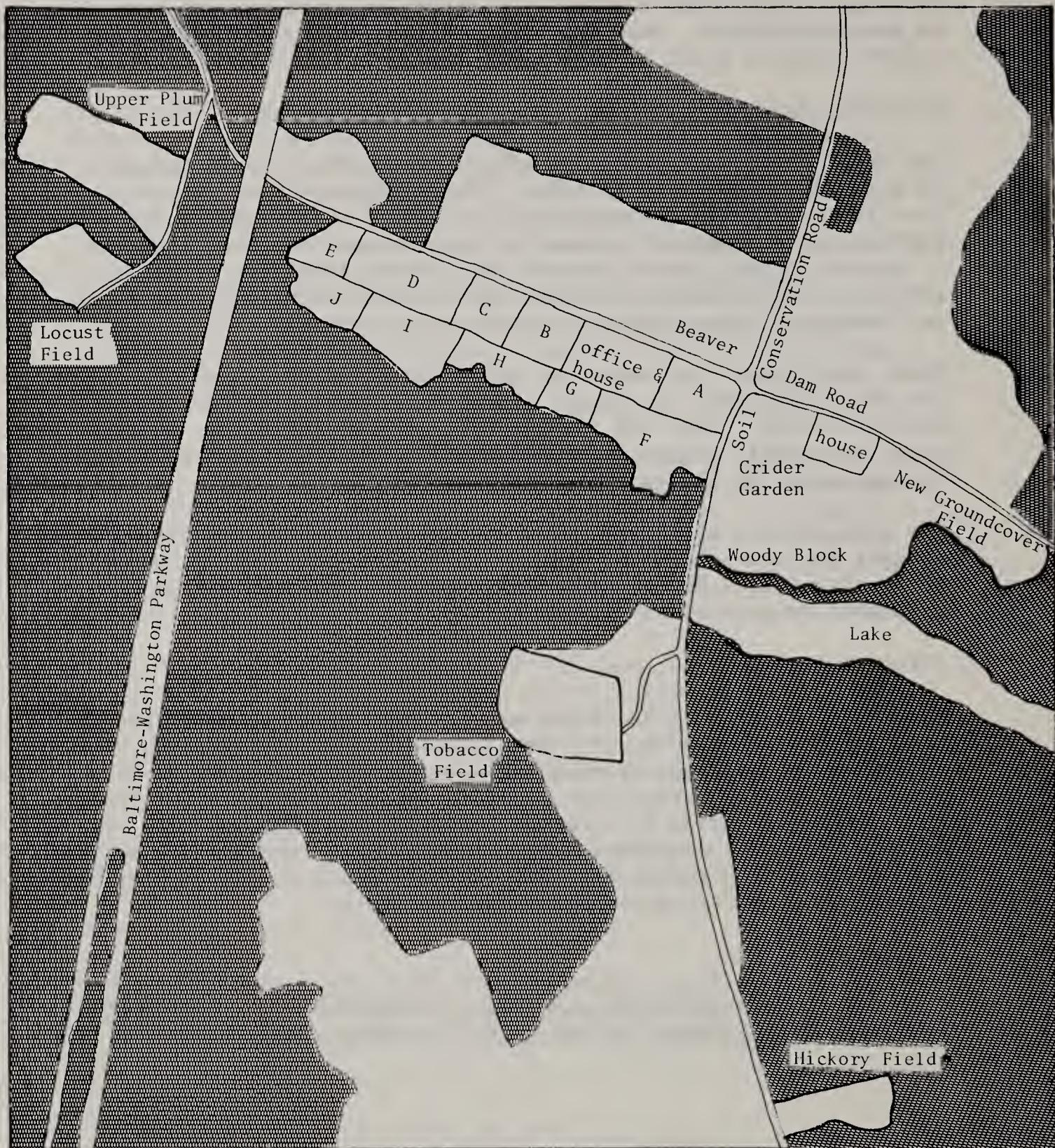
The wide variety of plants being increased on the center presents another problem--observing isolation requirements. To accomplish this, five fields are located from one-half to one mile from the headquarters-greenhouse complex.

Structures:

Center buildings consist of the main office (Building 509, located near the intersection of Soil Conservation and Beaver Dam Roads); two 75' x 16' glasshouses with attached headhouse and office space for the biological technician; enclosed garage with 30' x 24' shop area; enclosed garage for tractor and equipment storage; seed processing building; and plant storage building. Also, residences are provided on a rental basis for the manager and assistant manager. These residences are also located on the center.

Irrigation:

Supplemental irrigation is provided by a portable sprinkler system utilizing fire hydrants as the source of water.



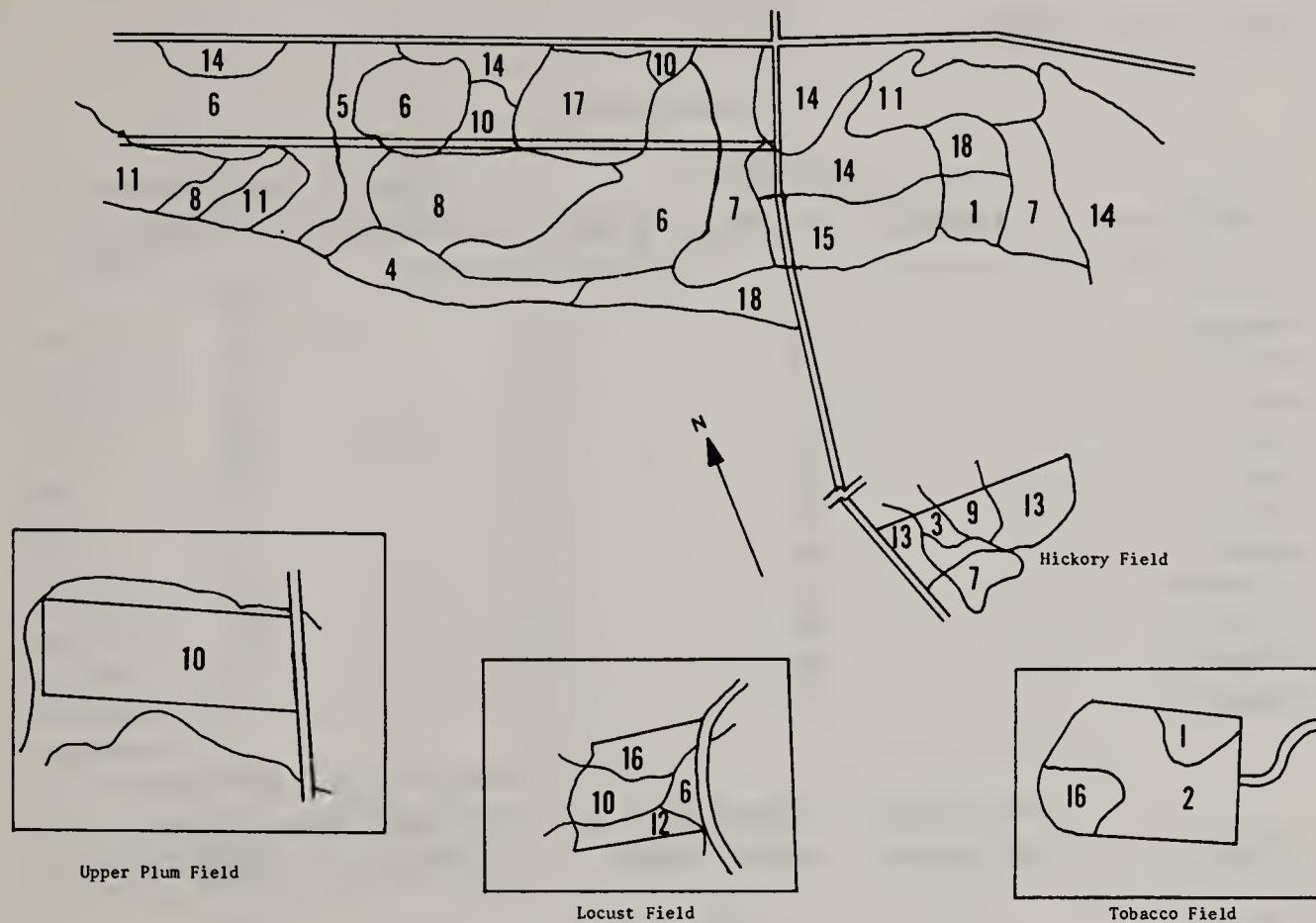
Field Boundary Map

0 1/4 1/2 mile

Woods

N

Soils Map and Descriptions



- 1 -- Cristiana clay--well drained soils, clayey throughout; most of the surface soil lost through erosion. Capability unit IVe-3. Moderate to strong acidity.
- 2 -- Cristiana fine sandy loam--a deep, well drained red clayey soil with a sandy surface and a very high moisture holding capacity.
- 3 -- Elkton silt loam--poorly drained silt loam over clay or silty clay. Drainage is a major problem. Capability unit IIIw-9. Strong to extreme acidity; the water table near the surface much of the year. Suitable for crops if desired.
- 4 -- Elsinboro sandy loam--sand dominant in the surface layer. Well suited to general crops and deep-rooted crops. Capability unit I-S. High moisture holding capacity.
- S -- Fallsington sandy loam--poorly drained loams and sandy loams. Capability unit IIIw-6. Strongly to extremely acid with moderate moisture holding capacity and moderate fertility. Suitable for farm uses if drained.
- 6 -- Galestown - Evesboro loamy sands--coarse, loose and droughty. Severely limited for farming; protection from wind erosion is necessary. Capability unit IVs-1. Low natural fertility and extreme acidity. Suitable for deep-rooted crops and for shallow-rooted plants if irrigation is supplied when needed.
- 7 -- Luka sandy loam--moderately well drained, some drainage aids necessary for cropping. Capability unit IIw-7. Moderate to high moisture holding capability. Strongly to extremely acid. Suitable for general farm crops.
- 8 -- Keyport fine sandy loam--moderately well drained sandy, silty, and silty clay loams. Erosion rather than drainage is the prime consideration. Capability units IIe-36 and IIIe-36. Strongly acid, natural fertility medium to low. Well suited to some farm crops when managed.
- 9 -- Matapeake silt loam--well drained. Suitable for most crops including tobacco. Capability unit IIe-4. High moisture holding capacity and good natural fertility.
- 10 -- Muirkirk loamy sand--erosion hazard from the thick sandy surface layer. Capability units IIIs-S and IIle-S. Rapidly permeable, medium to strongly acid, moderate in fertility. Suited to deep-rooted crops only unless irrigated.
- 11 -- Rumford loam sand--medium and coarse sand moderate to dominant in the surface layer. Low in moisture and plant nutrients, but high quality crops can be produced if managed properly. Capability units IIIs-4 and IIle-33. Excessively drained, acid.
- 12 -- Rumford sandy and clayey land--suitable for undemanding farm crops on rotation with long-term pasture or woodland. Dominant sand in the surface layer. Capability units IIle-41 and IVe-S. Medium to extreme acidity, fertility low to high.
- 13 -- Sassafras sandy loam--moisture holding capacity is good except for prolonged drought. Erosion is likely unless good farm practices are followed, suited to most crops. Capability unit IIe-S. Acid, productive under fertilization. Suitable for most crops.
- 14 -- Sunnyside fine sandy loam--moderate risk of erosion, droughty only during long dry periods. Suited to most crops. Capability units IIe-S and IIIe-S. Acid, require fertilizer for good crops.
- 15 -- Sunnyside sandy clay loam--severely eroded if unprotected. Suitable for hay or pasture only, or woodland. Capability unit VIe-2. Well drained, strong to extreme acidity.
- 16 -- Sunnyside loam--moderately eroded. Suited to general crops and medium quality tobacco. Capability unit IIIe-4. Deep, well drained, medium to strong acidity. Moderate to high natural fertility.
- 17 -- Sunnyside urban land--disturbed land with no capability unit assigned. Variable potential and productivity.
- 18 -- Woodstown sandy loam--moderately well drained. Both erosion control and improved drainage are needed due to seasonally high water table. Capability units IIe-36 and IIIe-36. Moderately coarse textured and strongly acid. Natural fertility is medium to low. Suitable for some crops except where limited by slope.

Weather Data--1979

Temperature

<u>Month</u>	<u>Lowest temperature recorded for month (°F)</u>	<u>Highest temperature recorded for month (°F)</u>
January	-8	62
February	0	43
March	8	79
April	29	76
May	30	88
June	41	86
July	44	91
August	44	94
September	39	87
October	25	83
November	20	73
December	18	67

<u>Month</u>	<u>Mean low for month</u>	<u>Mean high for month</u>	Deviation of 1978 means from 12-year average	
			<u>Low</u>	<u>High</u>
January	22	37	-1	+6
February	12	36	-12	-10
March	30	60	0	+9
April	39	60	+9	-6
May	50	72	0	-2
June	54	78	-4	-4
July	63	83	-1	-4
August	63	84	-2	-1
September	55	77	0	-2
October	42	64	-1	-4
November	36	57	+4	+1
December	26	47	+2	+2

Normal date of last spring freeze -- April 29

Actual date of last spring freeze in 1979 -- May 2

Normal date of first fall freeze -- October 9

Actual date of first fall freeze in 1979 -- October 14

Normal number of freeze-free days -- 162

Actual number of freeze-free days in 1979 -- 162

Precipitation

<u>Month</u>	<u>Precipitation for month (inches)</u>	<u>Deviation from monthly average</u>
January	7.50	+4.68
February	4.20	+1.58
March	2.60	-1.12
April	2.35	-.84
May	4.45	+.48
June	4.15	+.06
July	4.25	-.35
August	7.00	+2.14
September	8.20	+4.88
October	5.55	+2.51
November	2.95	-.25
December	.85	-2.40

Total precipitation recorded in 1979: 54.05 inches

Deviation from average annual precipitation: +11.37 inches

Weather Summary

1979 was both cooler and wetter at the National Plant Materials Center, especially during the months of April through October. During this time each month recorded below normal temperatures and five of the seven months recorded above normal precipitation as compared to 1978 when the months of June through November each recorded below normal precipitation. Total precipitation for 1979 was 54.05 inches, 11.37 inches above normal.

The last spring freeze occurred one day earlier than in 1978 and five days later in the fall than in 1978. The growing season lasted 162 days which is normal.

Plant Materials Received - New Introductions

The National Plant Materials Center maintains a standing request with the Germplasm Resources Laboratory of Science and Education Administration for foreign plant materials needed to fill requests of field plant centers. The NPMC also requests material from numerous foreign researchers.

Normally, material received by the NPMC is in such small amounts that is must be increased before distribution to field PMC's.

1979 Introductions

<u>Name</u>	<u>Family</u>	<u>Name</u>	<u>Family</u>
<u>Acacia aneura</u>	Fabaceae	<u>Acacia oxycedrus</u>	Fabaceae
<u>Acacia ananeosa</u>	Fabaceae	<u>Acacia parramattensis</u>	Fabaceae
<u>Acacia armata</u>	Fabaceae	<u>Acacia penninervis</u>	Fabaceae
<u>Acacia brachystachya</u>	Fabaceae	<u>Acacia pravissima</u>	Fabaceae
<u>Acacia caesiella</u>	Fabaceae	<u>Acacia pycnantha</u>	Fabaceae
<u>Acacia calamifolia</u>	Fabaceae	<u>Acacia ramulosa</u>	Fabaceae
<u>Acacia campylacantha</u>	Fabaceae	<u>Acacia richi</u>	Fabaceae
<u>Acacia catechu</u>	Fabaceae	<u>Acacia saliciformis</u>	Fabaceae
<u>Acacia clivicola</u>	Fabaceae	<u>Acacia saligna</u>	Fabaceae
<u>Acacia continua</u>	Fabaceae	<u>Acacia scorpioides</u>	Fabaceae
<u>Acacia cupularis</u>	Fabaceae	<u>Acacia sieferana</u>	Fabaceae
<u>Acacia cyclophylla</u>	Fabaceae	<u>Acacia silvertris</u>	Fabaceae
<u>Acacia decurrens</u>	Fabaceae	<u>Acacia suaveolens</u>	Fabaceae
<u>Acacia dunnii</u>	Fabaceae	<u>Acacia subulata</u>	Fabaceae
<u>Acacia extensa</u>	Fabaceae	<u>Acacia terminalis</u>	Fabaceae
<u>Acacia farnesiana</u>	Fabaceae	<u>Acacia trineura</u>	Fabaceae
<u>Acacia graffiana</u>	Fabaceae	<u>Acacia uncinata</u>	Fabaceae
<u>Acacia imbricata</u>	Fabaceae	<u>Acacia verniciflua</u>	Fabaceae
<u>Acacia implexa</u>	Fabaceae	<u>Acacia villosa</u>	Fabaceae
<u>Acacia jonesii</u>	Fabaceae	<u>Acer ginnala</u>	Aceraceae
<u>Acacia linifolia</u>	Fabaceae	<u>Acer glabrum</u>	Aceraceae
<u>Acacia longifolia</u>	Fabaceae	<u>Acer negundo</u>	Aceraceae
<u>Acacia mearnsii</u>	Fabaceae	<u>Acer tataricum</u>	Aceraceae
<u>Acacia microcarpa</u>	Fabaceae	<u>Achillea filipendulina</u>	Asteraceae
<u>Acacia nilotica</u>	Fabaceae	<u>Achillea millefolium</u>	Asteraceae
<u>Acacia notabilis</u>	Fabaceae	<u>Achillea ptarmica</u>	Asteraceae

<u>Name</u>	<u>Family</u>	<u>Name</u>	<u>Family</u>
<u>Achillea sibirica</u>	Asteraceae	<u>Armeria juniperifolia</u>	Plumbaginaceae
<u>Agoseris glauca</u>	Asteraceae	<u>Armeria leucocephala</u>	Plumbaginaceae
<u>Agropyron desertorum</u>	Poaceae	<u>Armeria maritima</u>	Plumbaginaceae
<u>Agropyron intermedium</u>	Poaceae	<u>Armeria pseudoarmeria</u>	Plumbaginaceae
<u>Agropyron trachycaulon</u>	Poaceae	<u>Armeria rumelica</u>	Plumbaginaceae
<u>Agrostis alba</u>	Poaceae	<u>Armeria setacea</u>	Plumbaginaceae
<u>Agrostis canina</u>	Poaceae	<u>Artemisia abrotanum</u>	Asteraceae
<u>Agrostis gigantea</u>	Poaceae	<u>Artemisia absinthium</u>	Asteraceae
<u>Agrostis stolonifera</u>	Poaceae	<u>Artemisia argentea</u>	Asteraceae
<u>Agrostis tenuis</u>	Poaceae	<u>Artemisia borealis</u>	Asteraceae
<u>Agrostis vulgaris</u>	Poaceae	<u>Artemisia campestris</u>	Asteraceae
<u>Albizia lophantha</u>	Fabaceae	<u>Artemisia chamaemilifolia</u>	Asteraceae
<u>Alchemilla mollis</u>	Rosaceae	<u>Artemisia dracunculus</u>	Asteraceae
<u>Alnus incana</u>	Betulaceae	<u>Artemisia gorgonum</u>	Asteraceae
<u>Alnus sinuata</u>	Betulaceae	<u>Artemisia ludoviciana</u>	Asteraceae
<u>Alnus tenuifolia</u>	Betulaceae	<u>Artemisia tridenda</u>	Asteraceae
<u>Alopecurus arundinaceus</u>	Poaceae	<u>Artemisia vulgaris</u>	Asteraceae
<u>Alopecurus geniculatus</u>	Poaceae	<u>Asclepias tuberosa</u>	Asclepiadaceae
<u>Alopecurus pratensis</u>	Poaceae	<u>Aster alpinus</u>	Asteraceae
<u>Amelanchier alnifolia</u>	Rosaceae	<u>Aster amellus</u>	Asteraceae
<u>Amelanchier canadensis</u>	Rosaceae	<u>Aster brachyactis</u>	Asteraceae
<u>Ammophila arenaria</u>	Poaceae	<u>Aster conspicuus</u>	Asteraceae
<u>Amorpha fruticosa</u>	Fabaceae	<u>Aster cordifolius</u>	Asteraceae
<u>Anaphalis margaritacea</u>	Asteraceae	<u>Aster dracunculoides</u>	Asteraceae
<u>Anchusa azurea</u>	Boraginaceae	<u>Aster ericoides</u>	Asteraceae
<u>Anthemis tinctoria</u>	Asteraceae	<u>Aster flaccidus</u>	Asteraceae
<u>Antirrhinum majus</u>	Scrophulariaceae	<u>Aster foliaceus</u>	Asteraceae
<u>Arctostaphylos uva-ursi</u>	Ericaceae	<u>Aster laevis</u>	Asteraceae
<u>Arenaria montana</u>	Caryophyllaceae	<u>Aster lanceolatus</u>	Asteraceae
<u>Aristida contorta</u>	Poaceae	<u>Aster lateriflorus</u>	Asteraceae
<u>Armeria canescens</u>	Plumbaginaceae	<u>Aster lautureanus</u>	Asteraceae
<u>Armeria cinerea</u>	Plumbaginaceae	<u>Aster linosyris</u>	Asteraceae
<u>Armeria x formosa</u>	Plumbaginaceae	<u>Aster novae-angliae</u>	Asteraceae

<u>Name</u>	<u>Family</u>	<u>Name</u>	<u>Family</u>
<u>Aster pansus</u>	Asteraceae	<u>Atriplex calotheca</u>	Chenopodiaceae
<u>Aster pappei</u>	Asteraceae	<u>Atriplex canescens</u>	Chenopodiaceae
<u>Aster puncatus</u>	Asteraceae	<u>Atriplex cordifolia</u>	Chenopodiaceae
<u>Aster pyrenaeus</u>	Asteraceae	<u>Atriplex glauca</u>	Chenopodiaceae
<u>Aster salicifolius</u>	Asteraceae	<u>Atriplex hortensis</u>	Chenopodiaceae
<u>Aster sedifolius</u>	Asteraceae	<u>Atriplex laciniata</u>	Chenopodiaceae
<u>Aster sibiricus</u>	Asteraceae	<u>Atriplex latifolia</u>	Chenopodiaceae
<u>Aster simplex</u>	Asteraceae	<u>Atriplex lindleyi</u>	Chenopodiaceae
<u>Aster squamatus</u>	Asteraceae	<u>Atriplex littoralis</u>	Chenopodiaceae
<u>Aster subcoeruleus</u>	Asteraceae	<u>Atriplex patula</u>	Chenopodiaceae
<u>Aster thomsonii</u>	Asteraceae	<u>Atriplex rosea</u>	Chenopodiaceae
<u>Aster tongolensis</u>	Asteraceae	<u>Atriplex suberecta</u>	Chenopodiaceae
<u>Aster tripolium</u>	Asteraceae	<u>Atriplex vesicaria</u>	Chenopodiaceae
<u>Aster umbellatus</u>	Asteraceae	<u>Aurinia saxatilis</u>	Brassicaceae
<u>Astragalus alpinus</u>	Fabaceae	<u>Balsamorhize bookeri</u>	Asteraceae
<u>Astragalus americanus</u>	Fabaceae	<u>Baptisia australis</u>	Fabaceae
<u>Astragalus boeticus</u>	Fabaceae	<u>Bauhinia galpinii</u>	Fabaceae
<u>Astragalus centralpinus</u>	Fabaceae	<u>Beckmanni eruciformis</u>	Poaceae
<u>Astragalus cicer</u>	Fabaceae	<u>Belamcanda chinensis</u>	Iridaceae
<u>Astragalus contortuplicatus</u>	Fabaceae	<u>Betula glandulosa</u>	Betulaceae
<u>Astragalus cymbicarpos</u>	Fabaceae	<u>Betula nana</u>	Betulaceae
<u>Astragalus danicus</u>	Fabaceae	<u>Betula occidentalis</u>	Betulaceae
<u>Astragalus falcatus</u>	Fabaceae	<u>Betula papyrifera</u>	Betulaceae
<u>Astragalus frigidus</u>	Fabaceae	<u>Betula pendula</u>	Betulaceae
<u>Astragalus glycyphylloides</u>	Fabaceae	<u>Biota orientalis</u>	Cupressaceae
<u>Astragalus hamosus</u>	Fabaceae	<u>Biserrula pelicinoides</u>	Fabaceae
<u>Astragalus neglectus</u>	Fabaceae	<u>Brassica juncea</u>	Brassicaceae
<u>Astragalus norvegicus</u>	Fabaceae	<u>Brassica napus</u>	Brassicaceae
<u>Astragalus penduliflorus</u>	Fabaceae	<u>Brassica rapa</u>	Brassicaceae
<u>Astragalus pentaglottis</u>	Fabaceae	<u>Bromus ciliatus</u>	Poaceae
<u>Astragalus robbinsii</u>	Fabaceae	<u>Bromus commutatus</u>	Poaceae
<u>Astragalus sesameus</u>	Fabaceae	<u>Bromus erectus</u>	Poaceae
<u>Astragalus trimestris</u>	Fabaceae	<u>Bromus hordeaceus</u>	Poaceae

<u>Name</u>	<u>Family</u>	<u>Name</u>	<u>Family</u>
<u>Bromus inermis</u>	Poaceae	<u>Campanula persicifolia</u>	Campanulaceae
<u>Bromus mollis</u>	Poaceae	<u>Campanula rotundifolia</u>	Campanulaceae
<u>Bromus racemosus</u>	Poaceae	<u>Caragana arborescens</u>	Fabaceae
<u>Bromus ramosus</u>	Poaceae	<u>Caragana boisii</u>	Fabaceae
<u>Bromus secalinus</u>	Poaceae	<u>Caragana decorticans</u>	Fabaceae
<u>Bromus sitchensis</u>	Poaceae	<u>Caragana frutex</u>	Fabaceae
<u>Bromus unioloides</u>	Poaceae	<u>Caragana grandiflora</u>	Fabaceae
<u>Bromus valdiviensis</u>	Poaceae	<u>Carex arenaria</u>	Cyperaceae
<u>Buphtalmum salicifolium</u>	Asteraceae	<u>Carex buxbaumii</u>	Cyperaceae
<u>Caesalpinia clementis</u>	Fabaceae	<u>Carex crinita</u>	Cyperaceae
<u>Caesalpina sappan</u>	Fabaceae	<u>Carex disticha</u>	Cyperaceae
<u>Caesalpinia violacea</u>	Fabaceae	<u>Carex divulsa</u>	Cyperaceae
<u>Calamagrostis arundinacea</u>	Poaceae	<u>Carex echinata</u>	Cyperaceae
<u>Calamagrostis canadensis</u>	Poaceae	<u>Carex filiformis</u>	Cyperaceae
<u>Calamagrostis epigetos</u>	Poaceae	<u>Carex flacca</u>	Cyperaceae
<u>Calamagrostis pseudophragmites</u>	Poaceae	<u>Carex hirta</u>	Cyperaceae
<u>Calendula officinalis</u>	Asteraceae	<u>Carex lepidocarpa</u>	Cyperaceae
<u>Callistemon citrinus</u>	Myrtaceae	<u>Carex limosa</u>	Cyperaceae
<u>Callistemon linearis</u>	Myrtaceae	<u>Carex nigra</u>	Cyperaceae
<u>Callistemon macropunctatus</u>	Myrtaceae	<u>Carex otrubae</u>	Cyperaceae
<u>Callistemon phoeniceus</u>	Myrtaceae	<u>Carex panicea</u>	Cyperaceae
<u>Callistemon rigidus</u>	Myrtaceae	<u>Carex paupercula</u>	Cyperaceae
<u>Callistemon salignus</u>	Myrtaceae	<u>Carex pendula</u>	Cyperaceae
<u>Calluna vulgaris</u>	Ericaceae	<u>Carex polypylla</u>	Cyperaceae
<u>Calothamnus asper</u>	Myrtaceae	<u>Carex pseudocyperus</u>	Cyperaceae
<u>Calothamnus gilesii</u>	Myrtaceae	<u>Carex pulicaris</u>	Cyperaceae
<u>Calothamnus homalophyllus</u>	Myrtaceae	<u>Carex remota</u>	Cyperaceae
<u>Calothamnus lateralis</u>	Myrtaceae	<u>Carex retrorsa</u>	Cyperaceae
<u>Calothamnus quadrididus</u>	Myrtaceae	<u>Carex scaposa</u>	Cyperaceae
<u>Calothamnus validus</u>	Myrtaceae	<u>Carex spicata</u>	Cyperaceae
<u>Calytrix brachyphylla</u>	Myrtaceae	<u>Carex vulpinoidea</u>	Cyperaceae
<u>Campanula latifolia</u>	Campanulaceae	<u>Carpinus caroliniana</u>	Betulaceae
		<u>Cassia aciphylla</u>	Fabaceae

<u>Name</u>	<u>Family</u>	<u>Name</u>	<u>Family</u>
<u>Cassia artemisioides</u>	Fabaceae	<u>Chrysanthemum carinatum</u>	Asteraceae
<u>Cassia brewsteri</u>	Fabaceae	<u>Chrysanthemum coronarium</u>	Asteraceae
<u>Cassia nemophila</u>	Fabaceae	<u>Chrysanthemum leucanthemum</u>	Asteraceae
<u>Cassia odorata</u>	Fabaceae	<u>Chrysanthemum segetum</u>	Asteraceae
<u>Cassia pleurocarpa</u>	Fabaceae	<u>Chrysanthemum nauseosus</u>	Asteraceae
<u>Cassia sturtii</u>	Fabaceae	<u>Cichorium intybus</u>	Asteraceae
<u>Castilleja miniata</u>	Scrophulariaceae	<u>Clematis microphylla</u>	Ranunculaceae
<u>Casuarina acutivalvis</u>	Casuarinaceae	<u>Clematis serrulata</u>	Ranunculaceae
<u>Casuarina corniculata</u>	Casuarinaceae	<u>Collinsia bicolor</u>	Scrophulariaceae
<u>Casuarina helmsii</u>	Casuarinaceae	<u>Collinsia heterophylla</u>	Scrophulariaceae
<u>Ceanothus americanus</u>	Rhamnaceae	<u>Coreopsis lanceolata</u>	Asteraceae
<u>Ceanothus fendleri</u>	Rhamnaceae	<u>Cornus alba</u>	Cornaceae
<u>Ceanothus foliosus</u>	Rhamnaceae	<u>Cornus alternifolia</u>	Cornaceae
<u>Ceanothus impressus</u>	Rhamnaceae	<u>Cornus sanguinea</u>	Cornaceae
<u>Ceanothus sanguineus</u>	Rhamnaceae	<u>Cornus stolonifera</u>	Cornaceae
<u>Ceanothus thyrsiflorus</u>	Rhamnaceae	<u>Cornus suecica</u>	Cornaceae
<u>Ceanothus velutinus</u>	Rhamnaceae	<u>Coronilla argentea</u>	Fabaceae
<u>Celtis australis</u>	Ulmaceae	<u>Coronilla coronata</u>	Fabaceae
<u>Celtis occidentalis</u>	Ulmaceae	<u>Coronilla emerus</u>	Fabaceae
<u>Celtis reticulata</u>	Ulmaceae	<u>Coronilla glauca</u>	Fabaceae
<u>Celtis sinensis</u>	Ulmaceae	<u>Coronilla juncea</u>	Fabaceae
<u>Celtis tenuifolia</u>	Ulmaceae	<u>Coronilla minima</u>	Fabaceae
<u>Centaurea cyanus</u>	Asteraceae	<u>Coronilla parviflora</u>	Fabaceae
<u>Centaurea dealbata</u>	Asteraceae	<u>Coronilla scorpioides</u>	Fabaceae
<u>Centaurea montana</u>	Asteraceae	<u>Coronilla valentina</u>	Fabaceae
<u>Cercis siliquastrum</u>	Fabaceae	<u>Coronilla varia</u>	Fabaceae
<u>Chaenomeles japonica</u>	Rosaceae	<u>Corydalis sempervirens</u>	Fumariaceae
<u>Chamaecyparis pisifera</u>	Cupressaceae	<u>Cotoneaster acutifolia</u>	Rosaceae
<u>Chamaedaphne calyculata</u>	Ericaceae	<u>Cotoneaster adpressa</u>	Rosaceae
<u>Chasmanthium latifolium</u>	Poaceae	<u>Cotoneaster affinis</u>	Rosaceae
<u>Cheiranthus x allionii</u>	Brassicaceae	<u>Cotoneaster ambigua</u>	Rosaceae
<u>Chenopodium bonus-henricus</u>	Chenopodiaceae	<u>Cotoneaster amoenus</u>	Rosaceae
<u>Chrysanthemum balsamita</u>	Asteraceae	<u>Cotoneaster apiculata</u>	Rosaceae

<u>Name</u>	<u>Family</u>	<u>Name</u>	<u>Family</u>
<u>Cotoneaster bullata</u>	Rosaceae	<u>Desmodium canadensis</u>	Fabaceae
<u>Cotoneaster congesta</u>	Rosaceae	<u>Diervilla lonicera</u>	Caprifoliaceae
<u>Cotoneaster conspicua</u>	Rosaceae	<u>Diervilla sessilifolia</u>	Caprifoliaceae
<u>Cotoneaster dammeri</u>	Rosaceae	<u>Digitalis purpurea</u>	Scrophulariaceae
<u>Cotoneaster dielsiana</u>	Rosaceae	<u>Dodonaea lobulata</u>	Sapindaceae
<u>Cotoneaster franchetti</u>	Rosaceae	<u>Dodonaea microzyga</u>	Sapindaceae
<u>Cotoneaster harrsmithii</u>	Rosaceae	<u>Dodonaea stenozyga</u>	Sapindaceae
<u>Cotoneaster hebephylla</u>	Rosaceae	<u>Dolichos bicontortus</u>	Fabaceae
<u>Cotoneaster henryana</u>	Rosaceae	<u>Dolichos cebra</u>	Fabaceae
<u>Cotoneaster horizontalis</u>	Rosaceae	<u>Dolichos lablab</u>	Fabaceae
<u>Cotoneaster integerrima</u>	Rosaceae	<u>Dolichos levcomelas</u>	Fabaceae
<u>Cotoneaster microphylla</u>	Rosaceae	<u>Dolichos ornatus</u>	Fabaceae
<u>Cotoneaster niger</u>	Rosaceae	<u>Dolichos sesquipedalis</u>	Fabaceae
<u>Cotoneaster nigra</u>	Rosaceae	<u>Dryas drummondii</u>	Rosaceae
<u>Cotoneaster salicifolia</u>	Rosaceae	<u>Dryas octopetala</u>	Rosaceae
<u>Cotoneaster splendens</u>	Rosaceae	<u>Echinacea purpurea</u>	Asteraceae
<u>Cotoneaster sternianus</u>	Rosaceae	<u>Elaeagnus angustifolia</u>	Elaeagnaceae
<u>Cotoneaster wardii</u>	Rosaceae	<u>Elaeagnus commutata</u>	Elaeagnaceae
<u>Cotoneaster x wateri</u>	Rosaceae	<u>Elymus arenarius</u>	Poaceae
<u>Crataegus douglasii</u>	Rosaceae	<u>Elymus sibiricus</u>	Poaceae
<u>Crataegus intricata</u>	Rosaceae	<u>Elymus virginicus</u>	Poaceae
<u>Crepis capillaris</u>	Asteraceae	<u>Empetrum nigrum</u>	Ericaceae
<u>Crotalaria crassipes</u>	Fabaceae	<u>Enkianthus campanulatus</u>	Onagraceae
<u>Cupressus benthamii</u>	Cupressaceae	<u>Epilobium adenocaulon</u>	Onagraceae
<u>Dactylis glomerata</u>	Poaceae	<u>Epilobium anagallidifolium</u>	Onagraceae
<u>Dactylis polygama</u>	Poaceae	<u>Epilobium angustifolium</u>	Onagraceae
<u>Danthonia spicata</u>	Poaceae	<u>Epilobium ciliatum</u>	Onagraceae
<u>Daphne mezereum</u>	Thymelaeaceae	<u>Epilobium glandulosum</u>	Onagraceae
<u>Delphinium ajacis</u>	Ranunculaceae	<u>Epilobium hornemannii</u>	Onagraceae
<u>Delphinium ambiguum</u>	Ranunculaceae	<u>Epilobium latifolium</u>	Onagraceae
<u>Delphinium orientale</u>	Ranunculaceae	<u>Epilobium leptophyllum</u>	Onagraceae
<u>Deschampsia cespitosa</u>	Poaceae	<u>Eragrostis speciosa</u>	Poaceae
<u>Deschampsia flexuosa</u>	Poaceae	<u>Erigeron acer</u>	Asteraceae

<u>Name</u>	<u>Family</u>	<u>Name</u>	<u>Family</u>
<u>Erigeron borealis</u>	Asteraceae	<u>Eucalyptus fraxinoides</u>	Myrtaceae
<u>Erigeron compositus</u>	Asteraceae	<u>Eucalyptus gillii</u>	Myrtaceae
<u>Erigeron humilis</u>	Asteraceae	<u>Eucalyptus glaucescens</u>	Myrtaceae
<u>Erigeron pumilus</u>	Asteraceae	<u>Eucalyptus gongylocarpa</u>	Myrtaceae
<u>Erigeron speciosus</u>	Asteraceae	<u>Eucalyptus goniantha</u>	Myrtaceae
<u>Erysimum hieraciifolium</u>	Brassicaceae	<u>Eucalyptus goniocalyx</u>	Myrtaceae
<u>Eschscholzia californica</u>	Papaveraceae	<u>Eucalyptus gracilis</u>	Myrtaceae
<u>Eucalyptus agglomerata</u>	Myrtaceae	<u>Eucalyptus gregsoniana</u>	Myrtaceae
<u>Eucalyptus alba</u>	Myrtaceae	<u>Eucalyptus haemastoma</u>	Myrtaceae
<u>Eucalyptus amplifolia</u>	Myrtaceae	<u>Eucalyptus incrassata</u>	Myrtaceae
<u>Eucalyptus anceps</u>	Myrtaceae	<u>Eucalyptus kybeanensis</u>	Myrtaceae
<u>Eucalyptus andrewsii</u>	Myrtaceae	<u>Eucalyptus laevopinea</u>	Myrtaceae
<u>Eucalyptus angulosa</u>	Myrtaceae	<u>Eucalyptus langleyi</u>	Myrtaceae
<u>Eucalyptus annulata</u>	Myrtaceae	<u>Eucalyptus lansdowneana</u>	Myrtaceae
<u>Eucalyptus apiculata</u>	Myrtaceae	<u>Eucalyptus lehmanni</u>	Myrtaceae
<u>Eucalyptus calycogona</u>	Myrtaceae	<u>Eucalyptus leucoxylon</u>	Myrtaceae
<u>Eucalyptus camaldulensis</u>	Myrtaceae	<u>Eucalyptus ligustrina</u>	Myrtaceae
<u>Eucalyptus campaspe</u>	Myrtaceae	<u>Eucalyptus longicornis</u>	Myrtaceae
<u>Eucalyptus cloeziana</u>	Myrtaceae	<u>Eucalyptus longifolia</u>	Myrtaceae
<u>Eucalyptus conglobata</u>	Myrtaceae	<u>Eucalyptus macarthurii</u>	Myrtaceae
<u>Eucalyptus consideniana</u>	Myrtaceae	<u>Eucalyptus macrocarpa</u>	Myrtaceae
<u>Eucalyptus cosmophylla</u>	Myrtaceae	<u>Eucalyptus maculata</u>	Myrtaceae
<u>Eucalyptus cypellocarpa</u>	Myrtaceae	<u>Eucalyptus meintyreensis</u>	Myrtaceae
<u>Eucalyptus dalrympleana</u>	Myrtaceae	<u>Eucalyptus megacornuta</u>	Myrtaceae
<u>Eucalyptus diversifolia</u>	Myrtaceae	<u>Eucalyptus melliodora</u>	Myrtaceae
<u>Eucalyptus dives</u>	Myrtaceae	<u>Eucalyptus michaeliana</u>	Myrtaceae
<u>Eucalyptus dumosa</u>	Myrtaceae	<u>Eucalyptus morrisii</u>	Myrtaceae
<u>Eucalyptus elata</u>	Myrtaceae	<u>Eucalyptus multicaulis</u>	Myrtaceae
<u>Eucalyptusewartiana</u>	Myrtaceae	<u>Eucalyptus neglecta</u>	Myrtaceae
<u>Eucalyptus eximia</u>	Myrtaceae	<u>Eucalyptus obliqua</u>	Myrtaceae
<u>Eucalyptus fastigata</u>	Myrtaceae	<u>Eucalyptus oblonga</u>	Myrtaceae
<u>Eucalyptus foecunda</u>	Myrtaceae	<u>Eucalyptus oleosa</u>	Myrtaceae
<u>Eucalyptus forrestiana</u>	Myrtaceae	<u>Eucalyptus olsenii</u>	Myrtaceae

<u>Name</u>	<u>Family</u>	<u>Name</u>	<u>Family</u>
<u>Eucalyptus oreades</u>	Myrtaceae	<u>Genista monosperma</u>	Fabaceae
<u>Eucalyptus oxymitra</u>	Myrtaceae	<u>Geranium robertianum</u>	Geraniaceae
<u>Eucalyptus pauciflora</u>	Myrtaceae	<u>Gilia achilleifolia</u>	Polemoniaceae
<u>Eucalyptus pileata</u>	Myrtaceae	<u>Gilia capitata</u>	Polemoniaceae
<u>Eucalyptus pimpiniata</u>	Myrtaceae	<u>Gleditsia triacanthos</u>	Fabaceae
<u>Eucalyptus piperita</u>	Myrtaceae	<u>Glyceria grandis</u>	Poaceae
<u>Eucalyptus platypus</u>	Myrtaceae	<u>Hedysarum alpinum</u>	Fabaceae
<u>Eucalyptus porosa</u>	Myrtaceae	<u>Hedysarum coronarium</u>	Fabaceae
<u>Eucalyptus punctata</u>	Myrtaceae	<u>Hedysarum flexuosum</u>	Fabaceae
<u>Eucalyptus pyriformis</u>	Myrtaceae	<u>Hedysarum spinosissimum</u>	Fabaceae
<u>Eucalyptus radiata</u>	Myrtaceae	<u>Helenium bigelovii</u>	Asteraceae
<u>Eucalyptus saligna</u>	Myrtaceae	<u>Helianthus annuus</u>	Asteraceae
<u>Eucalyptus sclerophylla</u>	Myrtaceae	<u>Helianthus laetiflorus</u>	Asteraceae
<u>Eucalyptus sessilis</u>	Myrtaceae	<u>Helianthus tuberosus</u>	Asteraceae
<u>Eucalyptus sieberi</u>	Myrtaceae	<u>Hesperis matronalis</u>	Brassicaceae
<u>Eucalyptus socialis</u>	Myrtaceae	<u>Heteropappus altaicus</u>	Asteraceae
<u>Eucalyptus stellulata</u>	Myrtaceae	<u>Hippophae rhamnoides</u>	Elaeagnaceae
<u>Eucalyptus striatocalyx</u>	Myrtaceae	<u>Holodiscus discolor</u>	Rosaceae
<u>Eucalyptus stricta</u>	Myrtaceae	<u>Holodiscus dumosus</u>	Rosaceae
<u>Eucalyptus tetragona</u>	Myrtaceae	<u>Hypericum ascyon</u>	Clusiaceae
<u>Eucalyptus torquata</u>	Myrtaceae	<u>Hypericum beanii</u>	Clusiaceae
<u>Eucalyptus viridis</u>	Myrtaceae	<u>Hypochoeris radicata</u>	Asteraceae
<u>Eucalyptus wandoo</u>	Myrtaceae	<u>Iberis sempervirens</u>	Brassicaceae
<u>Euonymus alatus</u>	Celastraceae	<u>Impatiens biflora</u>	Balsaminaceae
<u>Euonymus radicans</u>	Celastraceae	<u>Impatiens noli-tangere</u>	Balsaminaceae
<u>Fallugia paradoxa</u>	Rosaceae	<u>Iris missouriensis</u>	Iridaceae
<u>Festuca rubra</u>	Poaceae	<u>Iris setosa</u>	Iridaceae
<u>Filipendula hexapetala</u>	Rosaceae	<u>Isopogon ceatophyllum</u>	Proteaceae
<u>Frangula alnus</u>	Rhamnaceae	<u>Isopogon cuneatus</u>	Proteaceae
<u>Fraxinus pennsylvanica</u>	Oleaceae	<u>Isopogon teretifolius</u>	Proteaceae
<u>Gaillardia aristata</u>	Asteraceae	<u>Juniperus chinensis</u>	Cupressaceae
<u>Gaillardia pulchella</u>	Asteraceae	<u>Juniperus communis</u>	Cupressaceae
<u>Galega officinalis</u>	Fabaceae	<u>Juniperus lucayana</u>	Cupressaceae

Name	Family	Name	Family
<u>Juniperus osteosperma</u>	Cupressaceae	<u>Linum perenne</u>	Linaceae
<u>Juniperus oxycedrus</u>	Cupressaceae	<u>Lobelia cardinalis</u>	Campanulaceae
<u>Juniperus phoenicea</u>	Cupressaceae	<u>Loiseleuria procumbens</u>	Ericaceae
<u>Juniperus sabina</u>	Cupressaceae	<u>Lolium multiflorum</u>	Poaceae
<u>Juniperus scopulorum</u>	Cupressaceae	<u>Lolium perenne</u>	Poaceae
<u>Juniperus virginiana</u>	Cupressaceae	<u>Lolium temulentum</u>	Poaceae
<u>Juniperus wallichiana</u>	Cupressaceae	<u>Lonicera chrysanthra</u>	Caprifoliaceae
<u>Kalmia latifolia</u>	Ericaceae	<u>Lonicera maackii</u>	Caprifoliaceae
<u>Kennedia prostrata</u>	Fabaceae	<u>Lonicera tatarica</u>	Caprifoliaceae
<u>Kunzea ambigua</u>	Myrtaceae	<u>Lotus corniculatus</u>	Fabaceae
<u>Kunzea baxteri</u>	Myrtaceae	<u>Lotus tenuis</u>	Fabaceae
<u>Larix decidua</u>	Pinaceae	<u>Lotus uliginosus</u>	Fabaceae
<u>Lathyrus cicera</u>	Fabaceae	<u>Lupinus alba</u>	Fabaceae
<u>Lathyrus japonicus</u>	Fabaceae	<u>Lupinus angustifolius</u>	Fabaceae
<u>Lathyrus latifolius</u>	Fabaceae	<u>Lupinus arboreus</u>	Fabaceae
<u>Lathyrus ochrus</u>	Fabaceae	<u>Lupinus luteus</u>	Fabaceae
<u>Lathyrus palustris</u>	Fabaceae	<u>Lupinus mutabilis</u>	Fabaceae
<u>Lathyrus sylvestris</u>	Fabaceae	<u>Lupinus nootkatensis</u>	Fabaceae
<u>Lathyrus vernus</u>	Fabaceae	<u>Lupinus polyphyllus</u>	Fabaceae
<u>Leersia oryzoides</u>	Poaceae	<u>Lychnis chalcedonica</u>	Caryophyllaceae
<u>Leptospermum coriaceum</u>	Myrtaceae	<u>Lycium chinense</u>	Solanaceae
<u>Leptospermum erubescens</u>	Myrtaceae	<u>Lythrum salicaria</u>	Lythraceae
<u>Leptospermum glabrescens</u>	Myrtaceae	<u>Magnolia macrophylla</u>	Magnoliaceae
<u>Leptospermum juniperinum</u>	Myrtaceae	<u>Malus baccata</u>	Rosaceae
<u>Leptospermum myrsinoides</u>	Myrtaceae	<u>Malus sylvestris</u>	Rosaceae
<u>Leptospermum petersonii</u>	Myrtaceae	<u>Malva moschata</u>	Malvaceae
<u>Leucaena latisiliqua</u>	Fabaceae	<u>Malva sylvestris</u>	Malvaceae
<u>Liatris punctata</u>	Asteraceae	<u>Medicago echinus</u>	Fabaceae
<u>Liatris spicata</u>	Asteraceae	<u>Medicago falcata</u>	Fabaceae
<u>Ligusticum scoticum</u>	Umbelliferae	<u>Medicago hispida</u>	Fabaceae
<u>Ligustrum vulgare</u>	Oleaceae	<u>Medicago lupulina</u>	Fabaceae
<u>Limnanthes douglasii</u>	Limnanthaceae	<u>Medicago polymorpha</u>	Fabaceae
<u>Lindelofia longiflora</u>	Boraginaceae	<u>Medicago sativa</u>	Fabaceae

<u>Name</u>	<u>Family</u>	<u>Name</u>	<u>Family</u>
<u>Melaleuca acuminata</u>	Myrtaceae	<u>Monarda fistulosa</u>	Lamiaceae
<u>Melaleuca corrugata</u>	Myrtaceae	<u>Nemophila menziesii</u>	Hydrophyllaceae
<u>Melaleuca diosmifolia</u>	Myrtaceae	<u>Nicotiana velutina</u>	Solanaceae
<u>Melaleuca eleutherostachya</u>	Myrtaceae	<u>Oenothera biennis</u>	Onagraceae
<u>Melaleuca elliptica</u>	Myrtaceae	<u>Orthocarpus hispidus</u>	Scrophulariaceae
<u>Melaleuca ericifolia</u>	Myrtaceae	<u>Oxytropis campestris</u>	Fabaceae
<u>Melaleuca hamulosa</u>	Myrtaceae	<u>Papaver alboroseum</u>	Papaveraceae
<u>Melaleuca huegelii</u>	Myrtaceae	<u>Papaver nudicaule</u>	Papaveraceae
<u>Melaleuca hypericifolia</u>	Myrtaceae	<u>Papaver rhoeas</u>	Papaveraceae
<u>Melaleuca lanceolata</u>	Myrtaceae	<u>Paspalum dilatatum</u>	Poaceae
<u>Melaleuca lateritia</u>	Myrtaceae	<u>Paspalum prostratum</u>	Poaceae
<u>Melaleuca microphylla</u>	Myrtaceae	<u>Paspalum scorbicum</u>	Poaceae
<u>Melaleuca oraria</u>	Myrtaceae	<u>Paspalum stoloniferum</u>	Poaceae
<u>Melaleuca pentagona</u>	Myrtaceae	<u>Paspalum urvillea</u>	Poaceae
<u>Melaleuca platycalyx</u>	Myrtaceae	<u>Paspalum vaginatum</u>	Poaceae
<u>Melaleuca pungens</u>	Myrtaceae	<u>Penstemon acuminatus</u>	Scrophulariaceae
<u>Melaleuca serpyllifolia</u>	Myrtaceae	<u>Penstemon affinis</u>	Scrophulariaceae
<u>Melaleuca sheathiana</u>	Myrtaceae	<u>Penstemon barbatus</u>	Scrophulariaceae
<u>Melaleuca striata</u>	Myrtaceae	<u>Penstemon calycosus</u>	Scrophulariaceae
<u>Melaleuca styphelioides</u>	Myrtaceae	<u>Penstemon campanulatus</u>	Scrophulariaceae
<u>Melaleuca subfalcata</u>	Myrtaceae	<u>Penstemon confertus</u>	Scrophulariaceae
<u>Melaleuca thyoides</u>	Myrtaceae	<u>Penstemon cordifolius</u>	Scrophulariaceae
<u>Melaleuca uncinata</u>	Myrtaceae	<u>Penstemon diffusus</u>	Scrophulariaceae
<u>Melaleuca urceolaris</u>	Myrtaceae	<u>Penstemon eatonii</u>	Scrophulariaceae
<u>Melaleuca viminea</u>	Myrtaceae	<u>Penstemon glaber</u>	Scrophulariaceae
<u>Melaleuca wilsonii</u>	Myrtaceae	<u>Penstemon glaucus</u>	Scrophulariaceae
<u>Melilotus alba</u>	Fabaceae	<u>Penstemon gormanii</u>	Scrophulariaceae
<u>Melilotus officinalis</u>	Fabaceae	<u>Penstemon gracilis</u>	Scrophulariaceae
<u>Mimulus guttatus</u>	Scrophulariaceae	<u>Penstemon grandiflorus</u>	Scrophulariaceae
<u>Mimulus lewisii</u>	Scrophulariaceae	<u>Penstemon laevigatus</u>	Scrophulariaceae
<u>Mimulus luteus</u>	Scrophulariaceae	<u>Penstemon murrayanus</u>	Scrophulariaceae
<u>Misanthus sinensis</u>	Poaceae	<u>Penstemon ovatus</u>	Scrophulariaceae
<u>Misopates orontium</u>	Scrophulariaceae	<u>Penstemon procerus</u>	Scrophulariaceae

<u>Name</u>	<u>Family</u>	<u>Name</u>	<u>Family</u>
<u>Penstemon richardsonii</u>	Scrophulariaceae	<u>Pinus pinaster</u>	Pinaceae
<u>Penstemon venustus</u>	Scrophulariaceae	<u>Pinus pinea</u>	Pinaceae
<u>Penstemon watsonii</u>	Scrophulariaceae	<u>Pinus ponderosa</u>	Pinaceae
<u>Phacelia sericea</u>	Hydrophyllaceae	<u>Pinus strobus</u>	Pinaceae
<u>Phacelia tanacetifolia</u>	Hydrophyllaceae	<u>Pinus taeda</u>	Pinaceae
<u>Phalaris aquatica</u>	Poaceae	<u>Pinus wallichiana</u>	Pinaceae
<u>Phalaris arundinacea</u>	Poaceae	<u>Poa alpina</u>	Poaceae
<u>Phalaris canariensis</u>	Poaceae	<u>Poa angustifolia</u>	Poaceae
<u>Phalaris minor</u>	Poaceae	<u>Poa compressa</u>	Poaceae
<u>Philadelphus coronarius</u>	Philadelphaceae	<u>Poa glauca</u>	Poaceae
<u>Philadelphus lewesii</u>	Philadelphaceae	<u>Poa nemoralis</u>	Poaceae
<u>Philadelphus tenuifolius</u>	Philadelphaceae	<u>Poa palustris</u>	Poaceae
<u>Photina villosa</u>	Rosaceae	<u>Poa pratensis</u>	Poaceae
<u>Phragmites australis</u>	Poaceae	<u>Poa subcaerulea</u>	Poaceae
<u>Physocarpus amurensis</u>	Rosaceae	<u>Poa trivialis</u>	Poaceae
<u>Physocarpus monogynus</u>	Rosaceae	<u>Polemonium coeruleum</u>	Polemoniaceae
<u>Physocarpus opulifolius</u>	Rosaceae	<u>Polemonium x richardsonii</u>	Polemoniaceae
<u>Picea abies</u>	Pinaceae	<u>Populus tremula</u>	Salicaceae
<u>Picea engelmanni</u>	Pinaceae	<u>Potentilla fruticosa</u>	Rosaceae
<u>Picea glauca</u>	Pinaceae	<u>Potentilla recta</u>	Rosaceae
<u>Picea pungens</u>	Pinaceae	<u>Prunus americana</u>	Rosaceae
<u>Pinckneya pubens</u>	Rubiaceae	<u>Prunus padus</u>	Rosaceae
<u>Pinus banksiana</u>	Pinaceae	<u>Prunus pensylvanica</u>	Rosaceae
<u>Pinus contorta</u>	Pinaceae	<u>Prunus serotina</u>	Rosaceae
<u>Pinus densiflora</u>	Pinaceae	<u>Prunus tomentosa</u>	Rosaceae
<u>Pinus echinata</u>	Pinaceae	<u>Prunus virginiana</u>	Rosaceae
<u>Pinus excelsa</u>	Pinaceae	<u>Psoralea bituminosa</u>	Fabaceae
<u>Pinus flexilis</u>	Pinaceae	<u>Puccinellia distans</u>	Poaceae
<u>Pinus hwangshanensis</u>	Pinaceae	<u>Puccinellia maritima</u>	Poaceae
<u>Pinus koraensis</u>	Pinaceae	<u>Purshia tridentata</u>	Rosaceae
<u>Pinus massoniana</u>	Pinaceae	<u>Ranunculus acris</u>	Ranunculaceae
<u>Pinus mugo</u>	Pinaceae	<u>Ranunculus lappaceus</u>	Ranunculaceae
<u>Pinus nigra</u>	Pinaceae	<u>Ranunculus orthorhynchus</u>	Ranunculaceae

<u>Name</u>	<u>Family</u>	<u>Name</u>	<u>Family</u>
<u>Ranunculus pensylvanicus</u>	Ranunculaceae	<u>Rubus strigosus</u>	Rosaceae
<u>Ranunculus platinifolius</u>	Ranunculaceae	<u>Rudbeckia hirta</u>	Asteraceae
<u>Ranunculus repens</u>	Ranunculaceae	<u>Rudbeckia purpurea</u>	Asteraceae
<u>Ranunculus sceleratus</u>	Ranunculaceae	<u>Rumex venosus</u>	Polyconaceae
<u>Ratibida columnifera</u>	Asteraceae	<u>Salix alba</u>	Salicaceae
<u>Rhamnus frangula</u>	Rhamnaceae	<u>Salix arctica</u>	Salicaceae
<u>Rhamnus purshiana</u>	Rhamnaceae	<u>Salvia argentea</u>	Lamiaceae
<u>Rhus copallina</u>	Anacardiaceae	<u>Salvia cleistogama</u>	Lamiaceae
<u>Rhus glabra</u>	Anacardiaceae	<u>Salvia horminum</u>	Lamiaceae
<u>Rhus trilobata</u>	Anacardiaceae	<u>Salvia jurisicci</u>	Lamiaceae
<u>Rhus typhina</u>	Anacardiaceae	<u>Salvia sclarea</u>	Lamiaceae
<u>Ribes aureum</u>	Grossulariaceae	<u>Salvia splendens</u>	Lamiaceae
<u>Ribes cereum</u>	Grossulariaceae	<u>Salvia verbenacea</u>	Lamiaceae
<u>Rosa acicularis</u>	Rosaceae	<u>Salvia verticillata</u>	Lamiaceae
<u>Rosa agrestis</u>	Rosaceae	<u>Salvia viridis</u>	Lamiaceae
<u>Rosa arkansana</u>	Rosaceae	<u>Sambucus canadensis</u>	Caprifoliaceae
<u>Rosa canina</u>	Rosaceae	<u>Sambucus glauca</u>	Caprifoliaceae
<u>Rosa corymbifera</u>	Rosaceae	<u>Sambucus nigra</u>	Caprifoliaceae
<u>Rosa ecae</u>	Rosaceae	<u>Sambucus pubens</u>	Caprifoliaceae
<u>Rosa eglanteria</u>	Rosaceae	<u>Sambucus racemosa</u>	Caprifoliaceae
<u>Rosa gymnocarpa</u>	Rosaceae	<u>Sanguisorba canadensis</u>	Rosaceae
<u>Rosa majalis</u>	Rosaceae	<u>Sanguisorba officinalis</u>	Rosaceae
<u>Rosa micrantha</u>	Rosaceae	<u>Saponaria officinalis</u>	Rosaceae
<u>Rosa nitidula</u>	Rosaceae	<u>Saxifraga pectinata</u>	Saxifragaceae
<u>Rosa pimpinellifolia</u>	Rosaceae	<u>Scirpus atrovirens</u>	Cyperaceae
<u>Rosa rubrifolia</u>	Rosaceae	<u>Scirpus cyperinus</u>	Cyperaceae
<u>Rosa rugosa</u>	Rosaceae	<u>Scirpus lacustris</u>	Cyperaceae
<u>Rosa sempervirens</u>	Rosaceae	<u>Scirpus maritimus</u>	Cyperaceae
<u>Rosa sicula</u>	Rosaceae	<u>Scirpus sylvaticus</u>	Cyperaceae
<u>Rosa spinosissima</u>	Rosaceae	<u>Scirpus tabernaemontani</u>	Cyperaceae
<u>Rosa villosa</u>	Rosaceae	<u>Sedum acre</u>	Crassulaceae
<u>Rosa woodsii</u>	Rosaceae	<u>Sedum hybridum</u>	Crassulaceae
<u>Rubus idaeus</u>	Rosaceae	<u>Sedum kamtschaticum</u>	Crassulaceae

Name	Family	Name	Family
<u>Sedum middendorffianum</u>	Crassulaceae	<u>Tilia cordata</u>	Tiliaceae
<u>Sedum rupestre</u>	Crassulaceae	<u>Trifolium arvense</u>	Fabaceae
<u>Sedum selskianum</u>	Crassulaceae	<u>Trifolium aureum</u>	Fabaceae
<u>Sedum stenopetalum</u>	Crassulaceae	<u>Trifolium campestre</u>	Fabaceae
<u>Senecio canus</u>	Asteraceae	<u>Trifolium dubium</u>	Fabaceae
<u>Senecio integrifolius</u>	Asteraceae	<u>Trifolium hybridum</u>	Fabaceae
<u>Silene acaulis</u>	Caryophyllaceae	<u>Trifolium medium</u>	Fabaceae
<u>Silene armeria</u>	Caryophyllaceae	<u>Trifolium pratense</u>	Fabaceae
<u>Silene glauca</u>	Caryophyllaceae	<u>Trifolium repens</u>	Fabaceae
<u>Silene inaperta</u>	Caryophyllaceae	<u>Trifolium spumosum</u>	Fabaceae
<u>Silene maritima</u>	Caryophyllaceae	<u>Trifolium stellatum</u>	Fabaceae
<u>Silphium laciniatum</u>	Asteraceae	<u>Trifolium subterraneum</u>	Fabaceae
<u>Sorbaria sorbifolia</u>	Rosaceae	<u>Trifolium undulatum</u>	Fabaceae
<u>Sorbus scopulina</u>	Rosaceae	<u>Tsuga canadensis</u>	Pinaceae
<u>Sorbus sitchensis</u>	Rosaceae	<u>Tsuga mertinsiana</u>	Pinaceae
<u>Spiraea alba</u>	Rosaceae	<u>Ulmus americana</u>	Ulmaceae
<u>Spiraea betulifolia</u>	Rosaceae	<u>Vaccinium vitis-idaea</u>	Ericaceae
<u>Spiraea lucida</u>	Rosaceae	<u>Viburnum dentatum</u>	Caprifoliaceae
<u>Symphoricarpos albus</u>	Caprifoliaceae	<u>Viburnum edule</u>	Caprifoliaceae
<u>Symphoricarpos x chenaultii</u>	Caprifoliaceae	<u>Viburnum lantana</u>	Caprifoliaceae
<u>Symphoricarpos occidentalis</u>	Caprifoliaceae	<u>Viburnum opulus</u>	Caprifoliaceae
<u>Symphoricarpos orbiculatus</u>	Caprifoliaceae	<u>Viburnum prunifolium</u>	Caprifoliaceae
<u>Syringa amurensis</u>	Oleaceae	<u>Viburnum rhytidophyllum</u>	Caprifoliaceae
<u>Syringa sweginzowii</u>	Oleaceae	<u>Vicia disperma</u>	Fabaceae
<u>Syringa villosa</u>	Oleaceae	<u>Vicia sepium</u>	Fabaceae
<u>Syringa vulgaris</u>	Oleaceae	<u>Vicia unijuga</u>	Fabaceae
<u>Tagetes erecta</u>	Asteraceae		
<u>Tagetes patula</u>	Asteraceae		
<u>Tagetes tenuifolia</u>	Asteraceae		
<u>Tanacetum vulgare</u>	Asteraceae		
<u>Thuja occidentalis</u>	Cupressaceae		
<u>Thuja orientalis</u>	Cupressaceae		

Plant Materials Acquired from SEA Regional Plant Introduction Stations
for Field PMC's:

The National Plant Materials Center serves as coordinator for the acquisition of all accessions from regional plant introduction stations for use by field plant materials centers. These regional plant introduction stations of the Science and Education Administration are located at Geneva, New York; Ames, Iowa; Experiment, Georgia; and Pullman, Washington.

Following is a list of field PMC's and plant materials received from the regional plant introduction stations in 1979:

<u>Species</u>	<u>Number of Accessions</u>
Americus, Georgia, PMC	
<u>Paspalum cromyorhizon</u>	2
<u>Paspalum distichum</u>	1
<u>Paspalum pauciciliatum</u>	2
Corvallis, Oregon, PMC	
<u>Deschampsia cespitosa</u>	14
<u>Deschampsia flexuosa</u>	2
<u>Deschampsia</u> sp.	1
<u>Elymus glaucus</u>	33
Lockeford, California, PMC	
<u>Agropyron caninum</u>	2
<u>Agropyron imbricatum</u>	1
<u>Agropyron intermedium</u>	1
<u>Agropyron intermedium</u> var. <u>trichophorum</u>	1
<u>Agropyron libanoticum</u>	4
<u>Agropyron tsukushense</u>	1
<u>Agropyron varnense</u>	1
<u>Brachiaria nigropedata</u>	1
<u>Brachiaria xantholeuca</u>	1
<u>Kochia prostrata</u>	1

Plant Specimens Submitted for Reidentification

Another function of the NPMC is to maintain contacts for authoritative identification of plant specimens submitted by SCS personnel. The center staff also has the responsibility of observing new introductions for questions of identify. Questionable plants are collected, pressed and dried, and submitted to the Plant Taxonomy Laboratory of the Science and Education Administration for identification.

The following plants were grown at the NPMC or one of the field PMC's and submitted for identification in 1979:

<u>PI or Other Number</u>	<u>Original Name</u>	<u>Submitted By</u>	<u>Corrected Name</u>
263393	<u>Arachis</u> sp.	NPMC	<u>Arachis monticola</u> Krap. and Rig.
322325	<u>Cassia</u> sp.	NPMC	Awaiting determination
368881	<u>Dactylis</u> sp.	NPMC	<u>Dactylis glomerata</u> L.
207538	<u>Desmodium</u> sp.	NPMC	<u>Desmodium tortuosum</u> (Sw.) DC.
317895	<u>Desmodium</u> sp.	NPMC	<u>Desmodium tortuosum</u> (Sw.) DC.
364790	<u>Desmodium</u> sp.	NPMC	<u>Desmodium sandwicense</u> E. Meyer
361875	<u>Digitaria</u> sp.	NPMC	<u>Digitaria milanjiana</u> (Rendle) Stapf
25	<u>Elymus junceus</u>	Bridger PMC	Awaiting determination
314665			
368882	<u>Eragrostis brownii</u>	NPMC	<u>Eragrostis curvula</u> (Schrad.) Nees
276033	<u>Eragrostis horizontalis</u>	NPMC	<u>E. lehmanniana</u> Nees XE. <u>trichophora</u> Coss. and Dur.
	Grass	NPMC	<u>Brachypodium sylvaticum</u> (Huds.) Beauv.
368885	<u>Haynaldia</u> sp.	NPMC	<u>Haynaldia villosa</u> (L.) Schur
331392	<u>Hyparrhenia</u> sp.	NPMC	<u>Hyparrhenia anthistirioides</u> (A. Rich.) Stapf
345998	<u>Hypericum</u> sp.	NPMC	Awaiting determination

<u>PI or Other Number</u>	<u>Original Name</u>	<u>Submitted By</u>	<u>Corrected Name</u>
197015	<u>Indigofera pseudotinctoria</u>	NPMC	<u>Indigofera tinctoria</u> L.
Mich-364	<u>Lathyrus sylvestris</u>	Rose Lake PMC	Awaiting determination
383684	<u>Lippia</u> sp.	NPMC	<u>Phyla nodiflora</u> (L.) Greene
BN-23230	<u>Lupinus</u> sp.	NPMC	Awaiting determination
383724	<u>Oryzopsis</u> sp.	Pullman PMC	<u>Oryzopsis</u> sp. aff. <u>virescens</u> (Trin.) Beck
410319	<u>Pentaschistis setifolia</u>	NPMC	<u>Eragrostis heteromera</u> Stapf
383758	<u>Setaria</u> sp.	NPMC	<u>Setaria glauca</u> (L.) Beauv.
HA-4179	Unknown	Hawaii PMC	<u>Pennisetum longistylum</u> Hochst. ex A. Rich.
321417	<u>Zornia</u> sp.	NPMC	Awaiting determination

Literature Reviews

The NPMC maintains a file containing information on many genera. Also, requests for information retrieval are placed with the National Agricultural Library. Requests come from field plant materials centers, plant materials specialists, and state and federal agencies. Also, from research organizations and private individuals both in this country and abroad. Some of the major topics researched in 1979 were:

Alnus glutinosa - potential for use in reclamation of coal mine spoils

Andropogon gerardi - management and reproduction techniques; dormancy and germination requirements

Armeria maritima - tolerance to heavy metals

Arundo donax - propagation and management techniques

Dactylis glomerata - drought tolerant varieties; methods for determining drought tolerance in greenhouse and field plantings

Imperata cylindrica - geographical distribution in the United States; magnitude of problem as a weed; forage value; control methods; response to grazing, fertilization, etc.

Lolium temulentum - toxicity when used for forage

Paulownia tomentosa - potential for use in reclamation of coal mine spoils

Striga asiatica - control methods

Bobwhite quail: feeding habits; management of vegetation for quail habitat.

Revegetation of surface mine spoils contaminated with heavy metals.

Tropical agriculture - problems; tropical agricultural activities on slopes.

Use of vegetation for urban noise abatement, urban temperature modification.

Use of vegetation as indicators of air quality.

Seed Production - 1979

<u>PI or BN Number</u>	<u>Name</u>	<u>Source</u>	<u>Grams</u>
T-06625	<u>Achillea millefolium</u> L.	Denmark	15
T-06626	<u>Achillea millefolium</u> L.	Denmark	14
T-06627	<u>Achillea millefolium</u> L.	Denmark	2
T-06628	<u>Achillea millefolium</u> L.	Denmark	8
T-06629	<u>Achillea millefolium</u> L.	Greenland	trace
T-06631	<u>Achillea ptarmica</u> L.	Denmark	4
380613	<u>Achillea</u> sp.	Iran	trace
414420	<u>Anthephora pubescens</u> Nees	S. Africa	4
414425	<u>Anthephora pubescens</u> Nees	S. Africa	1
414427	<u>Anthephora pubescens</u> Nees	S. Africa	trace
414430	<u>Anthephora pubescens</u> Nees	S. Africa	3
414431	<u>Anthephora pubescens</u> Nees	S. Africa	1
414434	<u>Anthephora pubescens</u> Nees	S. Africa	trace
414438	<u>Anthephora pubescens</u> Nees	S. Africa	trace
414443	<u>Anthephora pubescens</u> Nees	S. Africa	trace
T-06665	<u>Armeria maritima</u> (Mill.) Willd.	Norway	trace
420339	<u>Armeria maritima</u> (Mill.) Willd.	Belgium	trace
420340	<u>Armeria maritima</u> (Mill.) Willd.	Belgium	trace
T-07124	<u>Armeria maritima</u> (Mill.) Willd. sibiraea	Greenland	trace
T-06672	<u>Artemisia vulgaris</u> L.	Denmark	trace
202149	<u>Astragalus</u> sp.	Argentina	10

<u>PI or BN Number</u>	<u>Name</u>	<u>Source</u>	<u>Grams</u>
T-06680	<u>Atriplex hortensis</u> L.	Denmark	11
T-07126	<u>Atriplex hortensis</u> L. var. <u>rubra</u> L.	Denmark	60
T-07127	<u>Atriplex littoralis</u> L.	Norway	1
T-06682	<u>Atriplex patula</u> L. ssp. <u>patula</u>	Denmark	2
T-06683	<u>Atriplex patula</u> L. ssp. <u>patula</u>	Denmark	7
T-07129	<u>Atriplex sabulosa</u> Rouy	Norway	trace
368852	<u>Atriplex semibaccata</u> R. Br.	Australia	7
368853	<u>Atriplex semibaccata</u> R. Br.	Australia	5
365646	<u>Biserrula pelicinus</u>	Spain	110
415865	<u>Blackiella conduplicata</u> Aellen S. Africa		28
380762	<u>Bromus erectus</u> Huds.	Iran	trace
380763	<u>Bromus tomentellus</u> Boiss.	Iran	trace
380775	<u>Bromus tomentellus</u> Boiss.	Iran	3
384828	<u>Bromus tomentellus</u> Boiss.	Iran	trace
345968	<u>Calamagrostis arundinacea</u> (L.) Norway Roth		trace
T-06699	<u>Calendula officinalis</u> L.	Spain	19
T-06702	<u>Campanula rotundifolia</u> L.	Denmark	trace
T-06704	<u>Campanula rotundifolia</u> L.	Denmark	trace
T-06705	<u>Campanula rotundifolia</u> L.	Denmark	trace
T-06706	<u>Campanula rotundifolia</u> L.	Denmark	trace
T-06707	<u>Campanula rotundifolia</u> L.	Norway	trace
322325	<u>Cassia</u> sp.	Brazil	2
T-06720	<u>Centaurea cyanus</u> L.	Denmark	trace
T-06721	<u>Centaurea cyanus</u> L.	Denmark	trace

<u>PI or BN Number</u>	<u>Name</u>	<u>Source</u>	<u>Grams</u>
T-11322	<u>Centaurea cyanus</u> L.	Iran	trace
T-06724	<u>Chrysanthemum coronarium</u> L.	Denmark	3
T-06725	<u>Chrysanthemum coronarium</u> L.	Denmark	3
T-06726	<u>Chrysanthemum leucanthemum</u> L.	Denmark	trace
T-06727	<u>Chrysanthemum leucanthemum</u> L.	Denmark	1
T-06728	<u>Chrysanthemum leucanthemum</u> L.	Denmark	trace
T-06729	<u>Chrysanthemum segetum</u> L.	Denmark	1
T-06730	<u>Chrysanthemum segetum</u> L.	Denmark	5
T-06731	<u>Chrysanthemum segetum</u> L.	Denmark	15
T-07144	<u>Chrysopsis villosa</u> (Pursh.) Nutt.	Norway	trace
T-06733	<u>Cichorium intybus</u> L.	Denmark	4
310391	<u>Coronilla scordioides</u>	USSR	trace
T-06753	<u>Coronilla varia</u> L.	France	2
T-06754	<u>Corydalis sempervirens</u> (L.) Pers.	Denmark	7
T-06755	<u>Corydalis sempervirens</u> (L.) Pers.	Denmark	trace
409730	<u>Crotalaria</u> sp.	S. Africa	10
368881	<u>Dactylis glomerata</u> L.	Portugal	trace
346967	<u>Dactylis marina</u> Borrill	Wales	trace
346968	<u>Dactylis marina</u> Borrill	Portugal	2
346970	<u>Dactylis marina</u> Borrill	Portugal	trace
311122	<u>Desmodium intortum</u> (Mill.) Fawc. and Rendle	Honduras	trace
322505	<u>Desmodium</u> sp.	Brazil	18
406167	<u>Digitaria mombasana</u> C. E. Hubb.	Kenya	21

<u>PI or BN Number</u>	<u>Name</u>	<u>Source</u>	<u>Grams</u>
325315	<u>Elymus sibiricus</u> L.	USSR	15
369236	<u>Elymus sibiricus</u> L.	USSR	2
T-07158	<u>Epilobium adenocaulon</u> Havsskn.	Denmark	1
T-07159	<u>Epilodium hornmanii</u> Reichb.	Denmark	2
T-07160	<u>Epilobium palustre</u> L.	Denmark	8
T-07161	<u>Epilobium palustre</u> L.	Denmark	2
T-07162	<u>Epilobium palustre</u> L.	Denmark	7
409817	<u>Eragrostis bicolor</u> Nees	S. Africa	trace
T-13189	<u>Eragrostis lehmanniana</u> Nees	Arizona	trace
T-07164	<u>Erigeron compositus</u> Pursh.	Norway	trace
380849	<u>Festuca ovina</u> L.	Iran	5
T-06810	<u>Gaillardia pulchella</u> Foug	N. Carolina	4
T-07166	<u>Gilia achilleifolia</u> Benth.	Denmark	10
T-06811	<u>Gilia capitata</u> Slms.	Denmark	trace
163453	<u>Glycine soja</u> Sieb. and Zucc.	N. Carolina	34
317896	<u>Glycine wightii</u> (Grah. ex Wight and Arn.) Verdc.	Tanzania	12
368885	<u>Haynaldia villosa</u> (L.) Schur	Australia	5
413794	<u>Helictotrichon pubescens</u> (Huds.) Pilger.	France	2
345998	<u>Hypericum</u> sp.	Norway	13
T-06820	<u>Hypochoeris radicata</u> L.	Denmark	26
T-06821	<u>Hypochoeris radicata</u> L.	Denmark	30
T-06822	<u>Hypochoeris radicata</u> L.	Denmark	28
T-06823	<u>Hypochoeris radicata</u> L.	Denmark	25
T-06855	<u>Lathyrus sylvestris</u> L.	Norway	6

<u>PI or BN Number</u>	<u>Name</u>	<u>Source</u>	<u>Grams</u>
T-06856	<u>Lathyrus sylvestris</u> L.	Norway	trace
282688	<u>Lathyrus sylvestris</u> L.	Sweden	35
T-06927	<u>Lobelia</u> sp.	Sweden	trace
T-11323	<u>Lotus</u> sp.	Turkey	trace
283637	<u>Lupinus angustifolia</u> L.	Portugal	1
303052	<u>Lupinus luteus</u> L.	S. Africa	25
326277	<u>Lupinus luteus</u> L.	USSR	14
326278	<u>Lupinus luteus</u> L.	USSR	1
326279	<u>Lupinus luteus</u> L.	USSR	29
338648	<u>Lupinus luteus</u> L.	Morocco	23
368921	<u>Lupinus luteus</u> L.	Hungary	1
T-06970	<u>Lupinus nanus</u>	Denmark	1
T-06972	<u>Lupinus succulentus</u>	Denmark	18
T-06973	<u>Lupinus</u> sp.	New York	2
T-06974	<u>Lythrum salicaria</u> L.	Denmark	3
T-06975	<u>Lythrum salicaria</u> L.	Denmark	2
298624	<u>Macroptilium atropurpureum</u> (DC.) Urb.	China	77
300997	<u>Macroptilium atropurpureum</u> (DC.) Urb.	China	63
322575	<u>Macroptilium atropurpureum</u> (DC.) Urb.	Brazil	72
322576	<u>Macroptilium atropurpureum</u> (DC.) Urb.	Australia	81
322577	<u>Macroptilium atropurpureum</u> (DC.) Urb.	Australia	66
322578	<u>Macroptilium atropurpureum</u> (DC.) Urb.	Australia	66

<u>PI or BN Number</u>	<u>Name</u>	<u>Source</u>	<u>Grams</u>
322581	<u>Macroptilium atropurpureum</u> (DC.) Urb.	Australia	80
T-06978	<u>Malva moschata</u> L.	Belgium	44
T-06979	<u>Malva moschata</u> L.	Denmark	trace
T-06980	<u>Malva moschata</u> L.	Denmark	15
T-06981	<u>Malva moschata</u> L.	Denmark	75
236606	<u>Medicago falcata</u> L.	France	2
227452	<u>Medicago lupulina</u> L.	Iran	30
T-06997	<u>Medicago polymorpha</u> L.	France	5
T-06998	<u>Medicago polymorpha</u> L.	France	4
T-07025	<u>Melilotus alba</u> Medik.	France	6
322560	<u>Melilotus alba</u> Medik.	Brazil	28
383707	<u>Melilotus alba</u> Medik.	Turkey	10
325420	<u>Melilotus alba</u> var. <u>annua</u> Coe.	USSR	21
289314	<u>Melilotus officinalis</u> Lam.	Hungary	25
314465	<u>Melilotus officinalis</u> Lam.	USSR	4
325423	<u>Melilotus officinalis</u> Lam.	USSR	trace
325427	<u>Melilotus officinalis</u> Lam.	USSR	27
383708	<u>Melilotus officinalis</u> Lam.	Turkey	8
T-11324	<u>Melilotus officinalis</u> Lam.	Turkey	39
T-07027	<u>Mimulus guttatus</u>	Denmark	trace
T-07188	<u>Nemophila maculata</u>	Denmark	trace
T-07189	<u>Nemophila menziesii</u>	Denmark	2
T-07190	<u>Nemophila menziesii atomaria</u>	Denmark	2
T-07191	<u>Nemophila menziesii insignis</u>	Denmark	3
410226	<u>Panicum deustum</u> Thunb.	S. Africa	7

<u>PI or BN Number</u>	<u>Name</u>	<u>Source</u>	<u>Grams</u>
410251	<u>Panicum maximum</u> Jacq.	S. Africa	10
410252	<u>Panicum maximum</u> Jacq.	S. Africa	10
410254	<u>Panicum maximum</u> Jacq.	S. Africa	14
410255	<u>Panicum maximum</u> Jacq.	S. Africa	20
T-07031	<u>Papaver rhoeas</u> L.	Denmark	trace
T-07032	<u>Papaver rhoeas</u> L.	Denmark	2
T-07033	<u>Papaver rhoeas</u> L.	Denmark	4
339896	<u>Paspalum plicatulum</u> Michx.	Australia	trace
339897	<u>Paspalum plicatulum</u> Michx.	Australia	trace
T-07038	<u>Penstemon digitalis</u> Nutt.	Penna.	335
368991	<u>Piptochaetium</u> sp.	Australia	2
284251	<u>Poa alpina</u> L.	Czech.	trace
T-07198	<u>Poa kelloggii</u> Vasey	France	3
T-07054	<u>Poa nemoralis</u> L.	France	2
T-07056	<u>Potentilla recta</u> L.	Denmark	2
283966	<u>Psoralea bituminosa</u> L.	France	8
380900	<u>Salvia</u> cf. <u>verticillata</u> L.	Iran	5
312470	<u>Sanquisorba officinalis</u> L.	USSR	trace
T-07089	<u>Saponaria officinalis</u> L.	Denmark	1
T-07210	<u>Silene acaulis</u> (L.) Jacq.	Denmark	trace
T-07091	<u>Silene armeria</u> L.	Denmark	130
400309	<u>Stylosanthes fruticosa</u> (Retz.) Alst.	Rhodesia	32
372359	<u>Tagetes erecta</u> L.	USSR	54
350697	<u>Tagetes patula</u> L.	Netherlands	5
T-07099	<u>Tanacetum vulgare</u> L.	Norway	trace

<u>PI or BN Number</u>	<u>Name</u>	<u>Source</u>	<u>Grams</u>
406170	<u>Teramnus labialis</u>	Kenya	64
410373	<u>Themeda triandra</u> Forsk.	S. Africa	trace
T-07101	<u>Trifolium aureum</u> Poll.	Denmark	trace
233286	<u>Trifolium purpureum</u> Loisel.	Israel	trace
238370	<u>Trifolium purpureum</u> Loisel.	Lebanon	trace
238371	<u>Trifolium purpureum</u> Loisel.	Cyprus	trace
292482	<u>Trifolium purpureum</u> Loisel.	Israel	trace
292483	<u>Trifolium purpureum</u> Loisel.	Israel	trace
T-07104	<u>Trifolium spumosum</u> L.	Denmark	150
T-07105	<u>Trifolium spumosum</u> L.	France	68
T-07106	<u>Trifolium subterraneum</u> L.	France	18
120210	<u>Trifolium</u> sp.	Turkey	61
369145	<u>Trifolium</u> sp.	Australia	17
369146	<u>Trifolium</u> sp.	Australia	trace
369147	<u>Trifolium</u> sp.	<u>Australia</u>	trace
369149	<u>Trifolium</u> sp.	Turkey	trace
413776	<u>Vicia amphicarpa</u> Dorthes	Australia	trace
317310	<u>Vicia vinussinia</u> Nakai	Korea	3
344755	<u>Vigna</u> sp.	Kenya	trace
321417	<u>Zornia</u> sp.	Brazil	trace

Distribution of Plant Materials

The primary function of the center is to request, assemble, and as needed, increase seed and vegetative material from foreign sources to meet requests of field plant materials centers according to priorities established in the long-range program of each PMC.

Most requests are filled from the NPMC seed inventory from seed that has been reproduced here.

Packet Seed Shipments to Field PMC's and Other SCS Units

<u>Species</u>	<u>No. of packets</u>	<u>Species</u>	<u>No. of packets</u>
Aberdeen, Idaho, PMC			
<u>Acer ginnala</u>	4	<u>Astragalus galegiformis</u>	1
<u>Acer glabrum</u>	1	<u>Astragalus hamosus</u>	1
<u>Acer glabrum</u> var. <u>douglasii</u>	1	<u>Astragalus neglectus</u>	1
<u>Acer tataricum</u>	3	<u>Astragalus penduliflorus</u>	1
<u>Acer tataricum</u> var. <u>torminaloides</u>	1	<u>Astragalus pentaglottis</u>	1
<u>Agropyron trachycaulum</u>	1	<u>Astragalus sesameus</u>	1
<u>Amelanchier alnifolia</u>	1	<u>Astragalus sinicus</u>	9
<u>Amelanchier canadensis</u>	1	<u>Astragalus trimestris</u>	1
<u>Amorpha fruticosa</u>	6	<u>Balsamorhiza hookeri</u>	1
<u>Artemesia abrotanum</u>	1	<u>Bromus erectus</u>	9
<u>Astragalus baeticus</u>	2	<u>Bromus tomentellus</u>	4
<u>Astragalus calycinus</u>	1	<u>Bromus tomentosus</u>	1
<u>Astragalus centralpinus</u>	1	<u>Calamagrostis canescens</u>	2
<u>Astragalus cicer</u>	3	<u>Calamagrostis epigeios</u>	2
<u>Astragalus contoruplicatus</u>	1	<u>Caragana arborescens</u>	5
<u>Astragalus cymbicarpos</u>	1	<u>Caragana boissi</u>	1

Aberdeen, Idaho, PMC (cont'd.)

<u>Caragana decorticans</u>	1	<u>Daphne mezereum</u>	6
<u>Caragana frutex</u>	1	<u>Deschampsia caespitosa</u>	5
<u>Caragana microphylla</u>	1	<u>Deschampsia caespitosa</u> var. <u>pollida</u>	1
<u>Ceanothus fendleri</u>	1	<u>Elymus giganteus</u>	1
<u>Ceanothus sanguineus</u>	1	<u>Elymus sibiricus</u>	3
<u>Ceanothus velutinus</u>	1	<u>Enkianthus campanulatus</u>	1
<u>Cornus alba</u>	1	<u>Euonymus alatus</u>	1
<u>Cornus alternifolia</u>	2	<u>Frangula alnus</u>	12
<u>Cornus sanguinea</u>	5	<u>Hedysarum coronarium</u>	3
<u>Coronilla emerus</u>	3	<u>Hedysarum flexuosum</u>	1
<u>Coronilla emerus</u> ssp. <u>emerus</u>	1	<u>Hedysarum multijugum</u>	2
<u>Coronilla glauca</u>	1	<u>Hippophae rhamnoides</u>	2
<u>Coronilla minima</u> var. <u>australis</u>	1	<u>Holodiscus discolor</u>	2
<u>Coronilla scorpioides</u>	5	<u>Holodiscus dumosus</u>	1
<u>Coronilla valentina</u>	1	<u>Iris missouriensis</u>	1
<u>Coronilla varia</u>	9	<u>Iris setosa</u>	1
<u>Cotoneaster adpressus</u>	2	<u>Juniperus chinensis</u>	1
<u>Cotoneaster apiculatus</u>	1	<u>Juniperus communis</u>	3
<u>Crataegus chlorosarca</u>	1	<u>Juniperus communis</u> ssp. <u>communis</u>	1
<u>Crataegus douglasii</u>	1	<u>Juniperus osteosperma</u>	1
<u>Crataegus intricata</u>	2	<u>Juniperus scopularum</u>	1
<u>Dactylis glomerata</u> ssp. <u>woronowii</u>	1	<u>Lathyrus cicera</u>	5
<u>Dactylis</u> sp.	1	<u>Ligustrum</u> sp.	2

Aberdeen, Idaho, PMC (cont'd.)

<u>Lonicera chrysantha</u>	1	<u>Physocarpus amurensis</u>	1
<u>Lonicera involucrata</u>	1	<u>Physocarpus monogynus</u>	2
<u>Lonicera maackii</u>	2	<u>Physocarpus opulifolius</u>	3
<u>Lonicera tatarica</u>	3	<u>Prunus serotina</u>	2
<u>Lupinus luteus</u>	6	<u>Prunus tomentosa</u>	1
<u>Lycium chinense</u>	2	<u>Prunus virginiana</u>	1
<u>Lycium chinense</u> var. <u>ovatum</u>	1	<u>Prunus virginiana</u> var. <u>melanocarpa</u>	1
<u>Malus sylvestris</u>	2	<u>Rhamnus frangula</u>	1
<u>Malus transitoria</u>	1	<u>Rhamnus purshiana</u>	2
<u>Malus</u> sp.	1	<u>Rhus aromatica</u>	1
<u>Mimulus guttatus</u>	3	<u>Rhus copallina</u>	3
<u>Mimulus guttatus</u> ssp. <u>guttatus</u>	1	<u>Rhus glabra</u>	5
<u>Penstemon cordifolius</u>	1	<u>Rhus trilobata</u>	1
<u>Penstemon digitalis</u>	2	<u>Rhus typhina</u>	2
<u>Penstemon grandiflorus</u>	1	<u>Rhus rugosa</u>	1
<u>Penstemon palmeri</u>	1	<u>Ribes aureum</u>	1
<u>Penstemon richardsonii</u>	1	<u>Ribes cereum</u>	1
<u>Penstemon richardsonii</u> var. <u>richardsonii</u>	1	<u>Rosa canina</u>	5
<u>Penstemon strictus</u>	1	<u>Rosa rugosa</u>	1
<u>Philadelphus coronarius</u>	1	<u>Rosa wichuriana</u>	1
<u>Philadelphus lewisii</u>	3	<u>Rosa woodsii</u> var. <u>ultramontana</u>	1
<u>Philadelphus tenuifolius</u>	1	<u>Sambucus canadensis</u>	2
<u>Photinia villosa</u>	2	<u>Sambucus glauca</u>	1

Aberdeen, Idaho, PMC (cont'd.)

<u>Sambucus niger</u>	1	<u>Trifolium canescens</u>	1
<u>Sambucus nigra</u>	2	<u>Trifolium chilense</u>	1
<u>Sambucus pubens</u>	4	<u>Trifolium fragiferum</u>	6
<u>Sambucus racemosa</u>	3	<u>Trifolium hybridum</u>	5
<u>Sambucus racemose</u> ssp. <u>pubens</u> var. <u>melanocarpa</u>	1	<u>Trifolium lupinaster</u>	1
<u>Sorbaria sorbifolia</u>	3	<u>Trifolium medium</u>	1
<u>Sorbaria sorbifolia</u> var. <u>stellipila</u>	1	<u>Trifolium occidentale</u>	3
<u>Spiraea alba</u>	2	<u>Trifolium tridentatum</u>	1
<u>Spiraea betulifolia</u> ssp. <u>lucida</u>	1	<u>Trifolium willdenovii</u>	2
<u>Spiraea lucida</u>	1	<u>Viburnum dentatum</u>	3
<u>Sporobolus airoides</u>	7	<u>Viburnum lantana</u>	2
<u>Sporobolus cryptandrus</u>	2	<u>Viburnum opulus</u>	4
<u>Symphoricarpos occidentalis</u>	1	<u>Viburnum prunifolium</u>	2
<u>Symphoricarpos orbiculatus</u>	1	<u>Viburnum rhytidophyllum</u>	1
<u>Symphoricarpos X chenaultii</u>	1	<u>Vicia amurensis</u>	3
<u>Syringa amurensis</u>	1	<u>Vicia cornigera</u>	1
<u>Syringa sweginzowii</u>	1	<u>Vicia cracca</u>	5
<u>Syringa villosa</u>	1	<u>Vicia fulgens</u>	1
<u>Tilia cordata</u>	2	<u>Vicia globosa</u>	1
<u>Trifolium alpestre</u>	2	<u>Vicia hajastana</u>	1
<u>Trifolium ambiguum</u>	3	<u>Vicia hyrcanica</u>	1
<u>Trifolium bejariense</u>	1	<u>Vicia macrocarpa</u>	1
<u>Trifolium billardieri</u>	1	<u>Vicia michauxii</u>	2

Aberdeen, Idaho, PMC (cont'd.)

<u>Vicia neglecta</u>	1	<u>Armeria alliacea</u>	1
<u>Vicia pisiformis</u>	5	<u>Armeria canescens</u> ssp. <u>nebrodensis</u>	1
<u>Vicia sepium</u>	8	<u>Armeria cinerea</u>	1
<u>Vicia sylvatica</u>	1	<u>Armeria maritima</u>	11
<u>Vicia tenuifolia</u>	2	<u>Armeria pseudoarmeria</u>	3
<u>Vicia unijuga</u>	1	<u>Armeria rumelica</u>	1
Americus, Georgia, PMC		<u>Aster novae-angliae</u>	1
<u>Coronilla varia</u>	1	<u>Carex crinita</u>	1
<u>Caesalpinia clementis</u>	1	<u>Carex divulsa</u>	2
<u>Caesalpinia sappan</u>	1	<u>Carex filiformis</u>	1
<u>Caesalpinia violacea</u>	1	<u>Carex flacca</u>	3
<u>Paspalum alcalinum</u>	1	<u>Carex lepidocarpa</u>	1
<u>Paspalum cromyorrhizon</u>	4	<u>Carex limosa</u>	1
<u>Paspalum distichum</u>	1	<u>Carex nigra</u>	1
<u>Paspalum intermedium</u>	1	<u>Carex otrubae</u>	2
<u>Paspalum pauciliatum</u>	2	<u>Carex panicea</u>	1
<u>Paspalum plicatulum</u>		<u>Carex paupercula</u>	1
Big Flats, New York, PMC		<u>Carex pendula</u>	3
<u>Agrostis alba</u>	3	<u>Carex polyphylla</u>	1
<u>Agrostis gigantea</u>	2	<u>Carex pseudocyperus</u>	2
<u>Agrostis stolonifera</u>	2	<u>Carex pulicaris</u>	1
<u>Agrostis vulgaris</u>	2	<u>Carex remota</u>	1
<u>Alnus serrulata</u>	1	<u>Carex retroflexa</u>	1

Big Flats, New York, PMC (cont'd.)

<u>Carex scaposa</u>	1	<u>Bouteloua gracilis</u>	1
<u>Carex spicata</u>	1	<u>Elymus cinereus</u>	3
<u>Carex vulpinoidea</u>	1	<u>Erigeron acre</u>	3
<u>Cornus alba</u>	2	<u>Erigeron borealis</u>	2
<u>Cornus stolonifera</u>	2	<u>Erigeron humilis</u>	1
<u>Lathyrus latifolius</u>	1	<u>Koeleria cristata</u>	1
<u>Lathyrus sylvestris</u>	1	<u>Liatris punctata</u>	1
<u>Malva moschata</u>	3	<u>Oryzopsis hymenoides</u>	7
<u>Poa compressa</u>	2	<u>Penstemon digitalis</u>	2
<u>Rudbeckia hirta</u>	2	<u>Poa compressa</u>	2
<u>Saponaria officinalis</u>	16	<u>Sporobolus asper</u> var. <u>hookeri</u>	2
<u>Scirpus atrovirens</u>	1	<u>Sporobolus cryptandrus</u>	2
<u>Scirpus cyperinus</u>	1	<u>Vicia amurensis</u>	1
<u>Scirpus ligustris</u>	1	<u>Vicia baicalensis</u>	1
<u>Scirpus maritimus</u>	8	<u>Vicia cassubica</u>	1
<u>Scirpus silvaticus</u>	1	<u>Vicia cornigera</u>	1
<u>Scirpus tabernaemontani</u>	3	<u>Vicia cracca</u>	15
Bridger, Montana, PMC		<u>Vicia dumetorum</u>	2
<u>Achillea millefolium</u>	5	<u>Vicia fulgens</u>	1
<u>Achillea ptarmica</u>	3	<u>Vicia globosa</u>	1
<u>Agropyron dasystachyum</u>	1	<u>Vicia graminea</u>	1
<u>Agropyron spicatum</u>	1	<u>Vicia hajastana</u>	1
<u>Amorpha canescens</u>	1	<u>Vicia hyrcanica</u>	1
<u>Artemesia vulgaris</u>	4	<u>Vicia michauxii</u>	2

Bridger, Montana, PMC (cont'd.)		Hoolehua, Hawaii, PMC	
<u>Vicia neglecta</u>	1	<u>Ammophila breviligulata</u>	1
<u>Vicia noeana</u>	2	<u>Brachiaria brizantha</u>	1
<u>Vicia pilosa</u>	1	<u>Brachiaria nigropedata</u>	1
<u>Vicia pisiformis</u>	2	<u>Brachiaria xantholeuca</u>	1
<u>Vicia sylvatica</u>	3	<u>Dolichos uniflorus</u> var. <u>uniflorus</u>	1
<u>Vicia tenuifolia</u>	3	<u>Lotus corniculatus</u> var. <u>arvensis</u>	1
<u>Vicia tenuifolia</u> var. <u>dalmatica</u>	1	<u>Lotus pedunculatus</u>	2
<u>Vicia unijuga</u>	1	<u>Lotus pedunculatus</u> var. <u>villosus</u>	1
<u>Vicia variegata</u>	1	<u>Medicago polymorpha</u>	4
<u>Vicia</u> sp.	1	<u>Medicago polymorpha</u> var. <u>brevispina</u>	15
Cape May, New Jersey, PMC		<u>Medicago polymorpha</u> var. <u>polygyra</u>	2
<u>Ammophila arenaria</u>	7	<u>Medicago polymorpha</u> var. <u>vulgaris</u>	47
<u>Ammophila X baltica</u>	1	<u>Medicago polymorpha</u> var. <u>vulgaris f. tuberculata</u>	2
<u>Elymus giganteus</u>	1	<u>Phaseolus atropurpureus</u>	4
<u>Juniperus virginiana</u>	1	<u>Vicia unijuga</u>	1
<u>Medicago lupulina</u>	1	Knox City, Texas, PMC	
<u>Rosa rugosa</u>	1	<u>Acacia confusa</u>	1
Corvallis, Oregon, PMC		<u>Acacia cyanophylla</u>	1
<u>Agropyron intermedium</u>	2	<u>Acacia cyclops</u>	1
<u>Agropyron trichophorum</u>	1	<u>Acacia detinens</u>	1
Rose Lake, Michigan, PMC		<u>Adesmia muricata</u>	1
<u>Anthoxanthum odoratum</u>	1		
<u>Rudbeckia hirta</u>	2		

Knox City, Texas, PMC (cont'd.)

<u>Adesmia tenella</u>	1	<u>Ceratonia siliqua</u>	1
<u>Aeshynomene americana</u>	1	<u>Clitoria rubiginosa</u>	1
<u>Alysicarpus rugosus</u>	1	<u>Clitoria ternatea</u>	3
<u>Alysicarpus vaginalis</u>	1	<u>Dalea oaxacana</u>	1
<u>Anthephora pubescens</u>	31	<u>Desmodium barbatum</u>	1
<u>Anthyllis tetraphylla</u>	1	<u>Desmodium canum</u>	1
<u>Arachis</u> sp.	1	<u>Desmodium cinerascens</u>	1
<u>Argyrolobium uniflorum</u>	1	<u>Desmodium discolor</u>	1
<u>Astragalus boeticus</u>	1	<u>Desmodium distortum</u>	1
<u>Astragalus galegiformis</u>	1	<u>Desmodium intortum</u>	1
<u>Astragalus siliquosus</u>	1	<u>Desmodium nicaraguense</u>	1
<u>Astragalus sinicus</u>	1	<u>Desmodium perplexum</u>	1
<u>Biserrula pelecinus</u>	3	<u>Desmodium polycarpum</u>	1
<u>Cajanus cajan</u>	1	<u>Desmodium purpureum</u>	2
<u>Calopogonium mucunoides</u>	1	<u>Desmodium rigidum</u>	1
<u>Canavalia ensiformis</u>	1	<u>Desmodium sandwicense</u>	1
<u>Cassia abbreviata</u>	1	<u>Desmodium tortuosum</u>	1
<u>Cassia artemisioides</u>	1	<u>Desmodium uncinatum</u>	1
<u>Cassia bonariensis</u>	1	<u>Desmodium</u> sp.	2
<u>Cassia laevigata</u>	1	<u>Dolichos axillaris</u>	1
<u>Cassia mimosoides</u>	1	<u>Dolichos biflorus</u>	1
<u>Cassia pleurocarpa</u>	1	<u>Dolichos lablab</u>	1
<u>Centrosema pubescens</u>	1	<u>Dorycnium herbaceum</u>	1
<u>Centrosema virginianum</u>	1	<u>Dorycnium rectum</u>	1

Knox City, Texas, PMC (cont'd.)

<u>Galega officinalis</u>	1	<u>Lathyrus cicera</u>	1
<u>Glycine koidzumii</u>	1	<u>Lathyrus clymenum</u>	1
<u>Glycine ussuriensis</u>	1	<u>Lathyrus nissolia</u>	1
<u>Hedysarum coronarium</u>	1	<u>Lathyrus ochrus</u>	1
<u>Hippocrepis commutata</u>	1	<u>Lathyrus sativus</u>	5
<u>Hippocrepis comosa</u>	1	<u>Lotus edulis</u>	2
<u>Hippocrepis glauca</u>	1	<u>Lotus maroccanus</u>	1
<u>Hippocrepis multisiliquosa</u>	1	<u>Lotus mearnsii</u>	1
<u>Hippocrepis salamannii</u>	1	<u>Lotus palustris</u>	1
<u>Hippocrepis scabra</u>	1	<u>Lotus peregrinus</u>	1
<u>Hippocrepis unisiliquosa</u>	1	<u>Lupinus albus</u>	1
<u>Hosackia subpinnata</u>	1	<u>Lupinus elegans</u>	1
<u>Hymenocarpus circinnatus</u>	1	<u>Lupinus hirsutus</u>	1
<u>Indigofera circinella</u>	1	<u>Lupinus luteus</u>	1
<u>Indigofera colutea</u>	1	<u>Lupinus pilosus</u>	1
<u>Indigofera confusa</u>	1	<u>Medicago arabica</u>	1
<u>Indigofera echinata</u>	1	<u>Medicago aschersoniana</u>	1
<u>Indigofera glandulosa</u>	1	<u>Medicago ciliaris</u>	1
<u>Indigofera hirsuta</u>	2	<u>Medicago littoralis</u>	1
<u>Indigofera parodiana</u>	1	<u>Medicago murex</u>	1
<u>Indigofera pilosa</u>	1	<u>Medicago orbicularis</u>	3
<u>Indigofera suffruticosa</u>	1	<u>Medicago polymorpha</u> var. <u>vulgaris</u>	1
<u>Indigofera sumatrana</u>	1	<u>Medicago rotata</u>	1
<u>Lathyrus aphaca</u>	1		

Knox City, Texas, PMC (cont'd.)

<u>Medicago scutellata</u>	2	<u>Sesbania sesban</u>	2
<u>Medicago tribuloides</u>	1	<u>Stizolobium aterrimum</u>	1
<u>Medicago truncatula</u> var. <u>longispina</u>	1	<u>Stylosanthes fruticosa</u>	1
<u>Medicago tuberculata</u>	1	<u>Stylosanthes gracilis</u>	1
<u>Medicago turbinata</u>	1	<u>Stylosanthes humilis</u>	1
<u>Pennisetum setaceum</u>	9	<u>Sutherlandia frutescens</u>	1
<u>Onobrychis gaubae</u>	1	<u>Sutherlandia microphylla</u>	1
<u>Onobrychis melanotricha</u>	1	<u>Tephrosia virginiana</u>	1
<u>Onobrychis persica</u>	1	<u>Teramnus labialis</u>	1
<u>Onobrychis viciifolia</u>	1	<u>Trifolium alexandrinum</u>	2
<u>Ononis alopecuroides</u>	2	<u>Trifolium balansae</u>	1
<u>Ononis ornithopodioides</u>	1	<u>Trifolium cherleri</u>	2
<u>Ononis pubescens</u>	1	<u>Trifolium clypeatum</u>	1
<u>Ononis sicula</u>	1	<u>Trifolium curvisepalum</u>	1
<u>Ornithopus compressus</u>	1	<u>Trifolium dasycrum</u>	1
<u>Ornithopus isthmocarpus</u>	1	<u>Trifolium echinatum</u> var. <u>carmeli</u>	1
<u>Ornithopus sativus</u>	2	<u>Trifolium fragiferum</u>	3
<u>Phaseolus atropurpureus</u>	1	<u>Trifolium globosum</u>	1
<u>Phaseolus bracteatus</u>	1	<u>Trifolium glomeratum</u>	1
<u>Phaseolus lathyroides</u>	1	<u>Trifolium hirtum</u>	1
<u>Phaseolus lunatus</u>	1	<u>Trifolium incarnatum</u>	1
<u>Psoralea cinerea</u>	1	<u>Trifolium israeliticum</u>	1
<u>Scorpiurus muricata</u>	1	<u>Trifolium lappaceum</u>	1
<u>Sesbania punicea</u>	1	<u>Trifolium meduseum</u>	1

Knox City, Texas, PMC (cont'd)		Lockeford, California, PMC.	
<u>Trifolium palaestinum</u>	1	<u>Acacia albida</u>	2
<u>Trifolium pallidum</u>	1	<u>Acacia aneura</u>	2
<u>Trifolium pilulare</u>	2	<u>Acacia araneosa</u>	1
<u>Trifolium purpureum</u>	1	<u>Acacia armata</u>	1
<u>Trifolium resupinatum</u>	3	<u>Acacia calamifolia</u>	2
<u>Trifolium spumosum</u>	1	<u>Acacia confusa</u>	1
<u>Trifolium squarrosum</u>	1	<u>Acacia constricta</u>	1
<u>Trifolium stellatum</u>	1	<u>Acacia continua</u>	1
<u>Trifolium subterraneum</u>	1	<u>Acacia cupularis</u>	1
<u>Trifolium tomentosum</u>	1	<u>Acacia cyclophylla</u>	1
<u>Trigonella arabica</u>	1	<u>Acacia cyclops</u>	3
<u>Vicia angustifolia</u>	1	<u>Acacia detinens</u>	1
<u>Vicia articulata</u>	1	<u>Acacia extensa</u>	1
<u>Vicia benghalensis</u>	1	<u>Acacia farnesiana</u>	1
<u>Vicia filicaulis</u>	1	<u>Acacia gladiformis</u>	1
<u>Vicia hybrida</u>	1	<u>Acacia graffiana</u>	1
<u>Vicia narbonensis</u>	1	<u>Acacia greggii</u>	1
<u>Vicia obscura</u>	1	<u>Acacia hirta</u>	1
<u>Vicia peregrina</u>	1	<u>Acacia horrida</u>	1
<u>Vicia sativa</u>	4	<u>Acacia imbricata</u>	1
<u>Vicia villosa</u>	1	<u>Acacia jonesii</u>	1
<u>Vigna decipiens</u>	1	<u>Acacia nilotica</u>	1
<u>Vigna luteola</u>	1	<u>Acacia notabilis</u>	1
<u>Vigna vexillata</u>	1	<u>Acacia penninervis</u>	1

Lockeford, California, PMC (cont'd.)

<u>Acacia senegal</u>	1	<u>Brachiaria decumbens</u>	2
<u>Acacia stricta</u>	1	<u>Brachiaria nigropedata</u>	1
<u>Acacia trineura</u>	1	<u>Brachiaria xantholeuca</u>	2
<u>Acacia visco</u>	1	<u>Briza media</u>	6
<u>Acacia sp.</u>	1	<u>Briza stricta</u>	1
<u>Agropyron albicans</u> var. <u>griffithsii</u>	1	<u>Briza triloba</u>	1
<u>Agropyron ciliare</u>	1	<u>Coreopsis grandiflora</u>	1
<u>Agropyron cordifolia</u>	1	<u>Cupressus benthamii</u>	1
<u>Agropyron dasystachyum</u>	2	<u>Dactylis aschersoniana</u>	3
<u>Agropyron intermedium</u>	4	<u>Dactylis glomerata</u> var. <u>himalayensis</u>	1
<u>Agropyron lindleyi</u>	1	<u>Dactylis glomerata</u> ssp. <u>santai</u>	1
<u>Agropyron pectiniforme</u>	9	<u>Dactylis glomerata</u> ssp. <u>woronowii</u>	1
<u>Agropyron pungens</u>	1	<u>Dactylis marina</u>	1
<u>Agropyron smithii</u>	1	<u>Dorycnium herbaceum</u>	1
<u>Agropyron trichophorum</u>	1	<u>Elymus cf. agropyroides</u>	1
<u>Atriplex canescens</u> var. <u>linearis</u>	1	<u>Elymus akmolinensis</u>	1
<u>Atriplex halimus</u>	1	<u>Elymus angustus</u>	2
<u>Atriplex leucoclada</u>	1	<u>Elymus dahuricus</u>	1
<u>Atriplex littoralis</u>	3	<u>Elymus riparius</u>	1
<u>Atriplex spongiosa</u>	1	<u>Elymus triticoides</u>	1
<u>Atriplex suberecta</u>	1	<u>Elymus villosus</u>	1
<u>Atriplex vesicaria</u>	1	<u>Elymus virginicus</u>	2
<u>Brachiaria brizantha</u>	2		

Lockeford, California, PMC (cont'd.)

<u>Eucalyptus alba</u>	1	<u>Eucalyptus obliqua</u>	1
<u>Eucalyptus anceps</u>	1	<u>Eucalyptus oleosa</u> var. <u>oleosa</u>	1
<u>Eucalyptus angulosa</u>	1	<u>Eucalyptus oxymitra</u>	2
<u>Eucalyptus calycogona</u>	1	<u>Eucalyptus pileata</u>	1
<u>Eucalyptus campaspe</u>	1	<u>Eucalyptus pimpiniana</u>	1
<u>Eucalyptus cloeziana</u>	1	<u>Eucalyptus platypus</u>	1
<u>Eucalyptus conglobata</u> ssp. <u>fraseri</u>	1	<u>Eucalyptus platypus</u> var. <u>heterophylla</u>	1
<u>Eucalyptus diversifolia</u>	2	<u>Eucalyptus porosa</u>	2
<u>Eucalyptus dumosa</u>	1	<u>Eucalyptus sessilis</u>	1
<u>Eucalyptus ewartiana</u>	1	<u>Eucalyptus socialis</u>	1
<u>Eucalyptus foecunda</u>	1	<u>Eucalyptus striatocalyx</u>	1
<u>Eucalyptus gillii</u>	1	<u>Eucalyptus tetragona</u>	1
<u>Eucalyptus gongylocarpa</u>	1	<u>Eucalyptus viridis</u>	1
<u>Eucalyptus goniantha</u>	1	<u>Eucalyptus wandoo</u>	1
<u>Eucalyptus goniocalyx</u>	2	<u>Eucalyptus</u> sp.	1
<u>Eucalyptus gracilis</u>	1	<u>Festuca arundinacea</u>	1
<u>Eucalyptus incrassata</u>	2	<u>Festuca ovina</u>	2
<u>Eucalyptus landsdowneana</u> ssp. <u>albopurpurea</u>	1	<u>Festuca pratensis</u>	1
<u>Eucalyptus leucoxylon</u> var. <u>macrocarpa</u>	1	<u>Helanthus grosseserratus</u>	1
<u>Eucalyptus longicornis</u>	1	<u>Juniperus communis</u>	1
<u>Eucalyptus X mcintyreensis</u>	1	<u>Juniperus lacuyana</u>	1
<u>Eucalyptus megacornuta</u>	1	<u>Juniperus oxycedrus</u> ssp. <u>oxycedrus</u>	1
<u>Eucalyptus morrisii</u>	1	<u>Juniperus phoenicia</u>	7

Lockeford, California, PMC (cont'd.)

<u>Juniperus wallichiana</u>	1	<u>Celtis australis</u>	2
<u>Kochia prostrata</u>	1	<u>Celtis occidentalis</u>	2
<u>Liatris pycnostachya</u>	1	<u>Celtis reticulata</u>	1
<u>Paspalum dilatatum</u>	2	<u>Celtis sinensis</u>	1
<u>Paspalum urvillea</u>	1	<u>Cotoneaster acutifolius</u>	1
<u>Pinus echinata</u>	1	<u>Cotoneaster affinis</u> var. <u>baccillaris</u>	1
<u>Pinus excelsa</u>	1	<u>Cotoneaster ambiguus</u>	1
<u>Pinus gerardiana</u>	1	<u>Cotoneaster amoenus</u>	1
<u>Pinus pinea</u>	3	<u>Cotoneaster bullatus</u>	1
<u>Pinus ponderosa</u>	2	<u>Cotoneaster congestus</u>	1
<u>Pinus ponderosa</u> var. <u>ponderosa</u>	1	<u>Cotoneaster conspicuus</u>	1
<u>Pinus taeda</u>	1	<u>Cotoneaster dammeri</u>	2
<u>Salvia cf. verticillata</u>	1	<u>Cotoneaster dammeri</u> var. <u>radicans</u>	1
Los Lunas, New Mexico, PMC		<u>Cotoneaster dielsianus</u>	1
<u>Anthephora pubescens</u>	21	<u>Cotoneaster franchetti</u>	1
Manhattan, Kansas, PMC		<u>Cotoneaster harrysmithii</u>	1
<u>Atriplex canescens</u>	2	<u>Cotoneaster hebephyllus</u>	1
<u>Biota orientalis</u>	1	<u>Cotoneaster henryana</u>	2
<u>Biota orientalis aurea</u>	1	<u>Cotoneaster horizontalis</u>	2
<u>Ceanothus americanus</u>	1	<u>Cotoneaster integrerrimus</u>	2
<u>Ceanothus foliosus</u>	1	<u>Cotoneaster microphylla</u>	1
<u>Ceanothus impressus</u>	1	<u>Cotoneaster multiflorus</u>	1
<u>Ceanothus thyrsiflorus</u>	2	<u>Cotoneaster multiflorus</u> var. <u>calocarpus</u>	1

Manhattan, Kansas, PMC (cont'd.)

<u>Cotoneaster niger</u>	2	<u>Rosa acicularis</u>	1
<u>Cotoneaster nigra</u>	1	<u>Rosa agrestis</u>	1
<u>Cotoneaster salicifolia</u>	2	<u>Rosa arkansana</u>	1
<u>Cotoneaster splendens</u>	1	<u>Rosa canina</u>	14
<u>Cotoneaster sternianus</u>	1	<u>Rosa cinnamomea</u>	2
<u>Cotoneaster wardii</u>	1	<u>Rosa corymbifera</u>	1
<u>Cotoneaster X watereri</u>	1	<u>Rosa dumalis</u>	1
<u>Elaeagnus angustifolia</u>	1	<u>Rosa ecae</u>	1
<u>Elaeagnus angustifolia orientalis</u>	3	<u>Rosa eglanteria</u>	1
<u>Glycine ussuriensis</u>	1	<u>Rosa gallica</u>	1
<u>Lespedeza cuneata</u>	1	<u>Rosa gymnocarpa</u>	1
<u>Lespedeza hedysaroides</u>	1	<u>Rosa helenae</u>	1
<u>Lespedeza japonica</u>	1	<u>Rosa majalis</u>	2
<u>Lespedeza repens</u>	1	<u>Rosa micrantha</u>	2
<u>Lespedeza tomentosa</u>	1	<u>Rosa nitidula</u>	1
<u>Lespedeza virgata</u>	1	<u>Rosa pimpinellifolia</u>	1
<u>Lespedeza virginica</u>	1	<u>Rosa roxburghii</u>	1
<u>Penstemon digitalis</u>	2	<u>Rosa rubiginosa</u>	1
<u>Penstemon palmeri</u>	1	<u>Rosa rubrifolia</u>	1
<u>Penstemon strictus</u>	2	<u>Rosa rugosa</u>	1
<u>Phaseolus lathroides</u>	1	<u>Rosa sempervirens</u>	1
<u>Prunus americana</u>	1	<u>Rosa sicula</u>	1
<u>Prunus serotina</u>	4	<u>Rosa spinosissima</u>	3
<u>Prunus virginica</u>	1	<u>Rosa villosa</u>	1

Manhattan, Kansas, PMC (cont'd.)

<u>Rosa villosa</u> ssp. <u>mollis</u>	1	<u>Alopecurus arundinaceus</u>	2
<u>Rosa wichuriana</u>	1	<u>Alopecurus geniculatus</u>	1
<u>Rosa wichuriana</u> var. <u>poterifolia</u>	1	<u>Alopecurus pratensis</u>	3
<u>Rosa</u> sp.	5	<u>Alyssum saxatile</u>	1
<u>Strophostyles umbellata</u>	1	<u>Arctostaphylos uva-ursi</u>	4
<u>Thuja orientalis</u>	2	<u>Atriplex hortensis</u>	1
<u>Trifolium pratense</u>	2	<u>Atriplex litoralis</u>	2
<u>Trifolium repens</u>	1	<u>Aurinia saxatilis</u>	1
Palmer, Alaska, PMC		<u>Beckmannia eruciformis</u>	2
<u>Acer ginnala</u>	1	<u>Betula glandulosa</u>	1
<u>Acer negundo</u>	4	<u>Betula nana</u>	2
<u>Acer negundo</u> var. <u>interius</u>	2	<u>Betula nana</u> X <u>tortuosa</u>	1
<u>Agropyron pectiniforme</u>	13	<u>Betula occidentalis</u>	1
<u>Agropyron subsecundum</u>	1	<u>Betula occidentalis</u> var. <u>occidentalis</u>	1
<u>Agrostis alba</u>	1	<u>Betula papyrifera</u>	3
<u>Agrostis canina</u>	1	<u>Betula papyrifera</u> ssp. <u>humilis</u>	1
<u>Agrostis gigantea</u>	2	<u>Betula papyrifera</u> var. <u>papyrifera</u>	1
<u>Agrostis stolonifera</u>	1	<u>Betula pendula</u>	3
<u>Agrostis tenuis</u>	2	<u>Brassica juncea</u>	12
<u>Alnus incana</u>	2	<u>Brassica rapa</u>	2
<u>Alnus incana</u> ssp. <u>tenuifolia</u>	1	<u>Campanula rotundifolia</u>	8
<u>Alnus tenuifolia</u>	2	<u>Caragana arborescens</u>	2
<u>Alnus viridis</u> ssp. <u>sinuata</u>	1	<u>Carpinus caroliniana</u>	1

Palmer, Alaska, PMC (cont'd.)

<u>Chamaedaphne pisifera</u>	1	<u>Lathyrus maritimus</u> ssp. <u>acutifolius</u>	1
<u>Cheiranthus X allionii</u>	1	<u>Ligusticum scoticum</u>	3
<u>Cornus stolonifera</u>	2	<u>Loiseleuria procumbens</u>	1
<u>Cornus suecica</u>	4	<u>Lupinus succulentus</u>	1
<u>Deschampsia caespitosa</u>	1	<u>Malus baccata</u>	1
<u>Deschampsia flexuosa</u>	2	<u>Malus sylvestris</u>	1
<u>Diervilla lonicera</u>	1	<u>Malus</u> sp.	1
<u>Dryas drummondii</u>	3	<u>Medicago falcata</u>	5
<u>Dryas octopetala</u>	5	<u>Medicago lupulina</u>	1
<u>Elymus sibiricus</u>	3	<u>Medicago polymorpha</u> var. <u>polygyra</u>	1
<u>Empetrum nigrum</u> ssp. <u>hermaphroditum</u>	1	<u>Medicago polymorpha</u> var. <u>vulgaris</u>	16
<u>Festuca rubra</u>	5	<u>Medicago sativa</u>	6
<u>Fraxinus pennsylvanica</u>	1	<u>Medicago sativa</u> ssp. <u>caucasica</u>	8
<u>Gaillardia pulchella</u>	1	<u>Medicago sativa</u> ssp. <u>caerulea</u>	1
<u>Hedysarum alpinum</u>	1	<u>Medicago sativa</u> ssp. <u>falcata</u>	1
<u>Helianthus annuus</u>	11	<u>Medicago sativa</u> ssp. <u>falcata</u> var. <u>romonica</u>	1
<u>Iberis sempervirens</u>	1	<u>Medicago sativa</u> ssp. <u>glomerata</u>	1
<u>Juniperus communis</u>	1	<u>Medicago sativa</u> ssp. <u>sativa</u>	25
<u>Juniperus virginiana</u>	3	<u>Medicago sativa</u> ssp. <u>transoxana</u>	8
<u>Larix decidua</u>	2		
<u>Lathyrus japonicus</u>	2		
<u>Lathyrus japonicus</u> var. <u>glabra</u>	1		
<u>Lathyrus maritimus</u>	6		

Palmer, Alaska, PMC (cont'd.)

<u>Medicago sativa</u> X <u>varia</u>	1	<u>Poa subcaerulea</u>	1
<u>Melilotus alba</u>	12	<u>Poa trivialis</u>	1
<u>Melilotus arvensis</u>	1	<u>Populus tremula</u>	1
<u>Melilotus officinalis</u>	3	<u>Potentilla fruticosa</u>	3
<u>Penstemon diffusus</u>	2	<u>Prunus padus</u>	2
<u>Penstemon strictus</u>	1	<u>Prunus pensylvanica</u>	1
<u>Phalaris arundinacea</u>	1	<u>Prunus virginiana</u> ssp. <u>demissa</u>	1
<u>Phalaris canariensis</u>	2	<u>Rhus aromatica</u>	1
<u>Phalaris minor</u>	1	<u>Rosa acicularis</u>	1
<u>Picea abies</u>	3	<u>Rosa rubrifolia</u>	1
<u>Picea engelmannii</u>	3	<u>Rosa rugosa</u>	1
<u>Picea glauca</u>	1	<u>Rosa woodsii</u> ssp. <u>ultramontana</u>	1
<u>Picea mariana</u>	1	<u>Rubus idaeus</u>	1
<u>Picea pungens</u>	2	<u>Rubus strigosus</u>	1
<u>Pinus banksiana</u>	2	<u>Rudbeckia hirta</u>	2
<u>Pinus contorta</u> var. <u>latifolia</u>	2	<u>Rudbeckia purpurea</u>	1
<u>Pinus flexilis</u>	1	<u>Salix alba</u>	1
<u>Pinus koraiensis</u>	1	<u>Salix arctica</u>	1
<u>Pinus mugo</u> var. <u>pumilio</u>	1	<u>Sorbus scopulina</u>	1
<u>Poa alpina</u>	2	<u>Sorbus sitchensis</u> ssp. <u>sitchensis</u>	1
<u>Poa angustifolia</u>	2	<u>Symphoricarpos albus</u>	3
<u>Poa glauca</u>	1	<u>Symphoricarpos albus</u> var. <u>albus</u>	1
<u>Poa palustris</u>	1		
<u>Poa pratensis</u>	10		

Palmer, Alaska, PMC (cont'd.)

<u>Thuja occidentalis</u>	3	<u>Acacia clivicola</u>	1
<u>Titia cordata</u>	2	<u>Acacia confusa</u>	1
<u>Trifolium agrarium</u>	3	<u>Acacia continua</u>	1
<u>Trifolium hybridum</u>	13	<u>Acacia cupularis</u>	1
<u>Trifolium pratense</u>	44	<u>Acacia cyclophylla</u>	1
<u>Trifolium repens</u>	1	<u>Acacia decurrens</u>	1
<u>Tsuga mertensiana</u>	1	<u>Acacia dunnii</u>	1
<u>Ulmus americana</u>	1	<u>Acacia extensa</u>	1
<u>Vaccinium vitis-idaea</u>	3	<u>Acacia graffiana</u>	1
<u>Viburnum edule</u>	1	<u>Acacia imbricata</u>	1
		<u>Acacia implexa</u>	1
Pullman, Washington, PMC		<u>Acacia jonesii</u>	1
<u>Artemisia tridentata</u> ssp. <u>tridentata</u>	1	<u>Acacia linifolia</u>	1
<u>Chrysothamnus nauseosus</u>	2	<u>Acacia longifolia</u> var. <u>sophorae</u>	1
<u>Purshia tridentata</u>	1	<u>Acacia mearnsii</u>	1
Tucson, Arizona, PMC		<u>Acacia microcarpa</u>	1
<u>Acacia albida</u>	3	<u>Acacia nilotica</u>	1
<u>Acacia aneura</u>	1	<u>Acacia notabilis</u>	1
<u>Acacia araneosa</u>	1	<u>Acacia oxycedrus</u>	1
<u>Acacia brachystachya</u>	1	<u>Acacia parramattensis</u>	1
<u>Acacia caesiella</u>	1	<u>Acacia penninervis</u>	1
<u>Acacia calamifolia</u>	3	<u>Acacia pycnantha</u>	1
<u>Acacia campylacantha</u>	1	<u>Acacia ramulosa</u>	1
<u>Acacia catechu</u>	1	<u>Acacia richi</u>	1

Tucson, Arizona, PMC (cont'd.)

<u>Acacia saliciformis</u>	1	<u>Callistemon linearis</u>	1
<u>Acacia saligna</u>	1	<u>Callistemon macropunctatus</u>	1
<u>Acacia scorpioides</u>	1	<u>Callistemon phoeniceus</u>	1
<u>Acacia sieberana</u> var. <u>woodii</u>	1	<u>Callistemon rigidus</u>	1
<u>Acacia silvestris</u>	1	<u>Callistemon salignus</u>	1
<u>Acacia stricta</u>	1	<u>Calothamnus asper</u>	1
<u>Acacia suaveolens</u>	1	<u>Calothamnus gilesii</u>	1
<u>Acacia subulata</u>	1	<u>Calothamnus homalophyllus</u>	1
<u>Acacia terminalis</u>	1	<u>Calothamnus lateralis</u>	1
<u>Acacia trineura</u>	1	<u>Calothamnus quadrifidus</u>	2
<u>Acacia uncinata</u>	1	<u>Calothamnus quadrifidus</u> var. <u>obtusus</u>	1
<u>Acacia verniciflora</u>	1	<u>Calothamnus validus</u>	1
<u>Acacia villosa</u>	1	<u>Calytrix brachyphylla</u>	1
<u>Albizia lophantha</u>	1	<u>Cassia aciphylla</u>	1
<u>Anthephora pubescens</u>	26	<u>Cassia artemisioides</u>	1
<u>Argemone alba</u>	1	<u>Cassia brewsteri</u>	1
<u>Argemone mexicana</u>	1	<u>Cassia mohrii</u>	1
<u>Aristida contorta</u>	1	<u>Cassia nemophila</u> var. <u>zygophylla</u>	1
<u>Atriplex canescens</u>	1	<u>Cassia odorata</u>	1
<u>Atriplex cordifolia</u>	1	<u>Cassia pleurocarpa</u>	1
<u>Atriplex lindleyi</u>	1	<u>Cassia sturtii</u>	1
<u>Atriplex nummularia</u>	1	<u>Casuarina acutivalvis</u>	1
<u>Atriplex semibaccata</u>	1	<u>Casuarina corniculata</u>	1
<u>Callistemon citrinus</u>	1		

Tucson, Arizona, PMC (cont'd.)

<u>Casuarina helmsii</u>	1	<u>Eucalyptus cypellocarpa</u>	1
<u>Cercis siliquastrum</u>	2	<u>Eucalyptus dalrympleana</u> ssp. <u>dalrympleana</u>	1
<u>Clematis microphylla</u>	1	<u>Eucalyptus diversifolia</u>	2
<u>Coix lachryma-jobi</u>	1	<u>Eucalyptus dives</u>	1
<u>Crotalaria crassipes</u>	1	<u>Eucalyptus dumosa</u>	1
<u>Crotalaria eremaea</u>	1	<u>Eucalyptus elata</u>	1
<u>Dodonae lobulata</u>	1	<u>Eucalyptus ewartiana</u>	1
<u>Dodonae microzyga</u>	1	<u>Eucalyptus eximia</u>	1
<u>Dodonae stenozyga</u>	1	<u>Eucalyptus fastigata</u>	1
<u>Eragrostis speciosa</u>	1	<u>Eucalyptus foecunda</u>	1
<u>Eucalyptus agglomerata</u>	1	<u>Eucalyptus forrestiana</u>	1
<u>Eucalyptus alba</u>	1	<u>Eucalyptus fraxinoides</u>	1
<u>Eucalyptus amplifolia</u>	1	<u>Eucalyptus gillii</u>	2
<u>Eucalyptus anceps</u>	1	<u>Eucalyptus glaucescens</u>	1
<u>Eucalyptus andrewsii</u>	1	<u>Eucalyptus gongylocarpa</u>	1
<u>Eucalyptus angulata</u>	1	<u>Eucalyptus goniantha</u>	1
<u>Eucalyptus annulata</u>	1	<u>Eucalyptus goniocalyx</u>	3
<u>Eucalyptus calycogona</u>	1	<u>Eucalyptus gracilis</u>	1
<u>Eucalyptus camaldulensis</u>	1	<u>Eucalyptus gregsoniana</u>	1
<u>Eucalyptus campaspe</u>	1	<u>Eucalyptus haemastoma</u>	1
<u>Eucalyptus cloeziana</u>	1	<u>Eucalyptus incrassata</u>	2
<u>Eucalyptus conglobata</u> ssp. <u>fraseri</u>	1	<u>Eucalyptus kybeanensis</u>	1
<u>Eucalyptus consideniana</u>	1	<u>Eucalyptus laevopinea</u>	1
<u>Eucalyptus cosmophylla</u>	2	<u>Eucalyptus landsdowneana</u> ssp. <u>albopurpurea</u>	1

Tucson, Arizona, PMC (cont'd.)

<u>Eucalyptus langleyi</u>	1	<u>Eucalyptus pimpiniana</u>	1
<u>Eucalyptus lehmanii</u>	1	<u>Eucalyptus piperita</u>	1
<u>Eucalyptus leucoxylon</u> var. <u>macrocarpa</u>	1	<u>Eucalyptus platypus</u>	1
<u>Eucalyptus ligustrina</u>	1	<u>Eucalyptus platypus</u> var. <u>heterophylla</u>	1
<u>Eucalyptus longicornis</u>	1	<u>Eucalyptus porosa</u>	2
<u>Eucalyptus longifolia</u>	1	<u>Eucalyptus prava</u>	1
<u>Eucalyptus macarthurii</u>	1	<u>Eucalyptus punctata</u>	1
<u>Eucalyptus macrocarpa</u>	1	<u>Eucalyptus pyriformis</u> ssp. <u>youngiana</u>	1
<u>Eucalyptus maculata</u>	1	<u>Eucalyptus radiata</u> ssp. <u>radiata</u>	1
<u>Eucalyptus X mcintyreensis</u>	1	<u>Eucalyptus radiata</u> ssp. <u>robertsonii</u>	1
<u>Eucalyptus megacornuta</u>	1	<u>Eucalyptus saligna</u>	1
<u>Eucalyptus melliodora</u>	1	<u>Eucalyptus sclerophylla</u>	1
<u>Eucalyptus multicaulis</u>	1	<u>Eucalyptus sessilis</u>	1
<u>Eucalyptus neglecta</u>	1	<u>Eucalyptus sieberi</u>	1
<u>Eucalyptus obliqua</u>	1	<u>Eucalyptus socialis</u>	1
<u>Eucalyptus oblonga</u>	1	<u>Eucalyptus stellulata</u>	1
<u>Eucalyptus oleosa</u> var. <u>oleosa</u>	1	<u>Eucalyptus striaticalyx</u>	1
<u>Eucalyptus olsenii</u>	1	<u>Eucalyptus stricta</u>	1
<u>Eucalyptus oreades</u>	1	<u>Eucalyptus tetragona</u>	1
<u>Eucalyptus oxymitra</u>	2	<u>Eucalyptus torquata</u>	2
<u>Eucalyptus pauciflora</u> ssp. <u>pauciflora</u>	1	<u>Eucalyptus viridis</u>	1
<u>Eucalyptus pauciflora</u> ssp. <u>nov</u>	1	<u>Eucalyptus wandoo</u>	1
<u>Eucalyptus pileata</u>	1	<u>Eucalyptus</u> sp.	1

Tucson, Arizona, PMC (cont'd.)

<u>Genista monosperma</u>	1	<u>Melaleuca ericifolia</u>	1
<u>Gleditsia triacanthos</u>	1	<u>Melaleuca hamulosa</u>	1
<u>Gleditsia triacanthos</u> <u>inermis</u>	1	<u>Melaleuca huegelii</u>	1
<u>Hyparrhenia hirta</u>	1	<u>Melaleuca hypericifolia</u>	1
<u>Hyparrhenia</u> sp.	2	<u>Melaleuca lanceolata</u>	1
<u>Hypericum ascyron</u>	1	<u>Melaleuca lateritia</u>	2
<u>Hypericum beanii</u>	1	<u>Melaleuca microphylla</u>	1
<u>Isopogon cuneatus</u>	1	<u>Melaleuca ororia</u>	1
<u>Isopogon teretifolius</u>	1	<u>Melaleuca pentagona</u>	1
<u>Kennedia prostrata</u>	1	<u>Melaleuca platycalyx</u>	2
<u>Kunzea ambigua</u>	1	<u>Melaleuca pungens</u> var. <u>obtusifolia</u>	1
<u>Kunzea baxteri</u>	1	<u>Melaleuca serpyllifolia</u>	1
<u>Leptospermum coriaceum</u>	2	<u>Melaleuca sheathiana</u>	1
<u>Leptospermum erubescens</u>	1	<u>Melaleuca stricta</u>	1
<u>Leptospermum glabrescens</u>	1	<u>Melaleuca styrphelioides</u>	1
<u>Leptospermum juniperinum</u>	1	<u>Melaleuca subfalcata</u>	1
<u>Leptospermum myrsinoides</u>	1	<u>Melaleuca thyoides</u>	1
<u>Leptospermum petersonii</u>	1	<u>Melaleuca uncinata</u>	1
<u>Leucaena latisiliqua</u>	10	<u>Melaleuca urceolaris</u>	1
<u>Melaleuca acuminata</u>	1	<u>Melaleuca viminea</u>	1
<u>Melaleuca corrugata</u>	1	<u>Melaleuca wilsonii</u>	1
<u>Melaleuca diosmifolia</u>	2	<u>Nicotiana velutina</u>	1
<u>Melaleuca eleutherostachya</u>	1		
<u>Melaleuca elliptica</u>	2		

Vegetative Material Shipped to PMC's

<u>Species</u>	<u>Number of Plants</u>
Cape May, New Jersey, PMC:	
<u>Calamagrostis arundinacea</u>	35
Knox City, Texas, PMC:	
<u>Paspalum plicatulum</u>	10
<u>Pennisetum clandestinum</u>	204
Lockeford, California, PMC:	
<u>Pinus densiflora</u>	7
<u>Pinus massoniana</u>	3

Bulk Seed Shipments

Cape May, New Jersey, PMC:

Panicum virgatum 108 lbs.

SCS Field Office, Union, West Virginia

Lespedeza bicolor 6 lbs.

Domestic Distribution--Non-SCS

<u>Name</u>	<u>PI or Other Number</u>	<u>Organization</u>	<u>Location</u>
<u>Lathyrus sativas</u>	PI-170477	National Cancer Inst.	Bethesda, Maryland
<u>Lathyrus sativas</u>	PI-193814	National Cancer Inst.	Bethesda, Maryland
<u>Lupinus luteus</u>	PI-316284	National Cancer Inst.	Bethesda, Maryland
<u>Lupinus luteus</u>	PI-316285	National Cancer Inst.	Bethesda, Maryland
<u>Vicia sativa</u>	PI-220917	National Cancer Inst.	Bethesda, Maryland
<u>Vicia sativa</u>	PI-223419	National Cancer Inst.	Bethesda, Maryland
<u>Engelmannia pinnatifida</u>		AMS-Seed Standr. Br.	Beltsville, Maryland
<u>Engelmannia pinnatifida</u>		AMS-Seed Standr. Br.	Beltsville, Maryland
<u>Salix glaucophylloides</u>	BN-13666	Worcester Polytechnic	Worcester, Massachusetts
<u>Salix glaucophylloides</u> var. <u>glaucophylla</u>	BN-13672	Worcester Polytechnic	Worcester, Massachusetts
<u>Salix humilis</u>	BN-22356	Worcester Polytechnic	Worcester, Massachusetts
<u>Salix purpurea</u>	BN-13687	Worcester Polytechnic	Worcester, Massachusetts
<u>Salix rigida</u>	BN-13659	Worcester Polytechnic	Worcester, Massachusetts
<u>Lindera benzoin</u>		Cornell University	Geneva, New York
<u>Viburnum lentago</u>		Cornell University	Geneva, New York
<u>Arrhenatherum elatius</u>	BN-6129	SEA Regional PI Sta.	Geneva, New York
<u>Arrhenatherum elatius</u>	BN-12305	SEA Regional PI Sta.	Geneva, New York
<u>Arrhenatherum elatius</u>	BN-16211	SEA Regional PI Sta.	Geneva, New York
<u>Arrhenatherum elatius</u>	BN-20510	SEA Regional PI Sta.	Geneva, New York
<u>Bromus marginatus</u> 'Bromar'		SEA Regional PI Sta.	Geneva, New York
<u>Dactylis glomerata</u> 'Latar'		SEA Regional PI Sta.	Geneva, New York
<u>Dactylis glomerata</u> 'Palestine'		SEA Regional PI Sta.	Geneva, New York
<u>Dactylis glomerata</u> 'Pomar'		SEA Regional PI Sta.	Geneva, New York
<u>Festuca ovina</u> 'Covar'		SEA Regional PI Sta.	Geneva, New York
<u>Festuca rubra</u> 'Viking'		SEA Regional PI Sta.	Geneva, New York
<u>Lolium perenne</u>	PI-107071	SEA Regional PI Sta.	Geneva, New York
<u>Lonicera periclymenum</u>	D-92	SEA Regional PI Sta.	Geneva, New York
<u>Lotus corniculatus</u> 'Mackinaw'		SEA Regional PI Sta.	Geneva, New York
<u>Lotus corniculatus</u> 'Cascade'		SEA Regional PI Sta.	Geneva, New York
<u>Lotus pedunculatus</u> 'Marshfield'		SEA Regional PI Sta.	Geneva, New York
<u>Phleum pratense</u> 'Drummond'		SEA Regional PI Sta.	Geneva, New York
<u>Phleum pratense</u> 'Climax'		SEA Regional PI Sta.	Geneva, New York

<u>Name</u>	<u>PI or Other Number</u>	<u>Organization</u>	<u>Location</u>
<u>Trifolium fragiferum</u>	PI-290729	SEA Regional PI Sta.	Geneva, New York
<u>Trifolium hybridum</u>	PI-291792	SEA Regional PI Sta.	Geneva, New York
<u>Trifolium hybridum</u>	PI-369143	SEA Regional PI Sta.	Geneva, New York
<u>Trifolium microdon</u>	PI-369144	SEA Regional PI Sta.	Geneva, New York
<u>Trifolium repens</u>	PI-346047	SEA Regional PI Sta.	Geneva, New York
<u>Vigna</u> sp.	PI-199375	SEA Regional PI Sta.	Geneva, New York
<u>Anthoxanthum odoratum</u>		Cornell University	Ithaca, New York
<u>Astragalus cicer</u> 'Lutana'		Cornell University	Ithaca, New York
<u>Festuca pratensis</u>	PI-380858	Cornell University	Ithaca, New York
<u>Lespedeza cuneata</u> 'Okinawa'		Cornell University	Ithaca, New York
<u>Lolium perenne</u> 'Argo'		Cornell University	Ithaca, New York
<u>Stipa viridula</u> 'Lodorm'		Cornell University	Ithaca, New York
<u>Trifolium incarnatum</u>	PI-284281	Cornell University	Ithaca, New York
<u>Trifolium repens</u>	PI-311494	Cornell University	Ithaca, New York
<u>Vicia villosa</u>	PI-340175	Cornell University	Ithaca, New York
<u>Agropyron elongatum</u> 'Orbit'		TAMU Agri. Res. Sta.	Pecos, Texas
<u>Adesmia muricata</u>	PI-238221	University of Virginia Charlottesville, Va.	
<u>Aerva tomentosa</u>	PI-249136	University of Virginia Charlottesville, Va.	
<u>Aeschynomene americana</u>	PI-219826	University of Virginia Charlottesville, Va.	
<u>Alyssum montanum</u>	PI-344559	University of Virginia Charlottesville, Va.	
<u>Anthyllis vulneraria</u>	PI-305506	University of Virginia Charlottesville, Va.	
<u>Arenaria graminifolia</u>	PI-292783	University of Virginia Charlottesville, Va.	
<u>Argemone mexicana</u>	T-6663	University of Virginia Charlottesville, Va.	
<u>Artemisia herba-alba</u>	PI-330692	University of Virginia Charlottesville, Va.	
<u>Aster novae-angliae</u>	T-2252	University of Virginia Charlottesville, Va.	
<u>Astragalus cicer</u>	PI-214095	University of Virginia Charlottesville, Va.	
<u>Baileya multirada</u>	T-1932	University of Virginia Charlottesville, Va.	
<u>Biserrula pelecinus</u>	PI-186264	University of Virginia Charlottesville, Va.	
<u>Briza media</u>	PI-369836	University of Virginia Charlottesville, Va.	
<u>Cerastium tomentosum</u>	T-6349	University of Virginia Charlottesville, Va.	
<u>Chrysanthemum leucanthemum</u>	T-1947	University of Virginia Charlottesville, Va.	
<u>Crambe abyssinica</u>	PI-247310	University of Virginia Charlottesville, Va.	

<u>Name</u>	<u>PI or Other Number</u>	<u>Organization</u>	<u>Location</u>
<u>Dactyloctenium aegyptium</u>	PI-271559	University of Virginia	Charlottesville, Va.
<u>Dalea oaxacana</u>	PI-315692	University of Virginia	Charlottesville, Va.
<u>Danthonia curva</u>	PI-238279	University of Virginia	Charlottesville, Va.
<u>Delphinium (mixed)</u>	T-1969	University of Virginia	Charlottesville, Va.
<u>Dianthus armeria</u>	T-1970	University of Virginia	Charlottesville, Va.
<u>Digitaria vestita</u>	PI-377758	University of Virginia	Charlottesville, Va.
<u>Echinopogon nutans</u>	PI-257717	University of Virginia	Charlottesville, Va.
<u>Eragrostis superba</u>	PI-364831	University of Virginia	Charlottesville, Va.
<u>Erinus alpinus</u>	T-7165	University of Virginia	Charlottesville, Va.
<u>Holcus lanatus</u>	PI-434071	University of Virginia	Charlottesville, Va.
<u>Juncus maritimus</u>	PI-365438	University of Virginia	Charlottesville, Va.
<u>Lechea tenuifloia</u>	T-7173	University of Virginia	Charlottesville, Va.
<u>Lotononis bainesii</u>	PI-234409	University of Virginia	Charlottesville, Va.
<u>Lotus corniculatus 'Cascade'</u>		Universiy of Virginia	Charlottesville, Va.
<u>Lychnis chalcedonica</u>	T-7184	University of Virginia	Charlottesville, Va.
<u>Medicago lupulina</u>	PI-302923	University of Virginia	Charlottesville, Va.
<u>Oenothera biennis</u>	T069	University of Virginia	Charlottesville, Va.
<u>Panicum amarulum</u>	PI-421136	University of Virginia	Charlottesville, Va.
<u>Paspalum nicorae 'Amcorae'</u>		University of Virginia	Charlottesville, Va.
<u>Penstemon digitalis</u>	T-7193	University of Virginia	Charlottesville, Va.
<u>Petalostemum purpureum 'Kaneb'</u>		University of Virginia	Charlottesville, Va.
<u>Portulacaria afra</u>	PI-407530	University of Virginia	Charlottesville, Va.
<u>Potentilla bucoana</u>	PI-297368	University of Virginia	Charlottesville, Va.
<u>Ratibida pinnata</u>	T-2130	University of Virginia	Charlottesville, Va.
<u>Rudbeckia hirta</u>	T-7083	University of Virginia	Charlottesville, Va.
<u>Salvia pitcheri</u>	PI-421551	University of Virginia	Charlottesville, Va.
<u>Sedum aizoon</u>	PI-292815	University of Virginia	Charlottesville, Va.
<u>Selago speciosa</u>	PI-203805	University of Virginia	Charlottesville, Va.
<u>Sesamum indicum</u>	PI-223817	University of Virginia	Charlottesville, Va.
<u>Setaria macrostachya</u>	PI-421049	University of Virginia	Charlottesville, Va.
<u>Trifolium armenium</u>	PI-253200	University of Virginia	Charlottesville, Va.
<u>Vernonia missurica</u>	PI-386011	University of Virginia	Charlottesville, Va.
<u>Veronica incana</u>	PI-434495	University of Virginia	Charlottesville, Va.

<u>Name</u>	<u>PI or Other Number</u>	<u>Organization</u>	<u>Location</u>
<u>Vicia melanops</u>	PI-349271	University of Washington	Seattle, Washington
<u>Vicia melanops</u>	BN-18962	University of Washington	Seattle, Washington
<u>Andropogon scoparius</u> 'Pastura'		National Park Service	Washington, D. C.
<u>Lespedeza bicolor</u> 'Natob'		West Virginia University	Keyser, West Virginia

Foreign Shipments

One of the functions of the NPMC is to assemble and distribute seed and plants to meet foreign requests. Requests may come directly to the NPMC, to field plant materials centers, or to plant materials specialists. Assembly of seed at the center prevents duplication since many times the person or organization places requests for the same material with several sources. It also allows the material to be shipped in one package, thus arriving at its destination as a unit.

When all seed or plants needed to fill a foreign request are acquired, proper paperwork is prepared and the material is transferred to the Plant Germplasm Quarantine Center of the Animal and Plant Health Inspection Service (APHIS) for inspection. When the material is cleared it is shipped to the requestor.

Listed below are the foreign shipments made during 1979.

Jorge J. Palma, Buenos Aires, Argentina

Tripsacum dactyloides, PMK-24

Sorghastrum nutans 'Osage'

Division of Plant Industry, Canberra City, Australia

Lespedeza cuneata, PI-421873

Lespedeza virgata 'Ambro'

Forage Crops Section, Research Station, Beaverlodge, Alberta, Canada

Bromus inermis 'Manchar'

Department of Plant Sciences, University of Western Ontario, London, Ontario, Canada

Calamovilfa longifolia 'Goshen'

Genetics Laboratory, McGill University, Ste. Anne de Bellevue, Quebec, Canada

Lotus purshianus, LK-509-74

Prairie Regional Laboratory, National Research Council, University Campus, Saskatoon, Saskatchewan, Canada

Bouteloua curtipendula 'Pierre'

Muhlenbergia wrightii 'El Vado'

Muhlenbergia wrightii, NM-216

Panicum texanum, F-639

Panicum texanum, BN-11637-67

Sporobolus airoides

Stipa viridula, P-15604

Soil Specialist, Department of Agriculture, Regina, Saskatchewan,
Canada

Elymus triticoides

Instituto De Investigaciones Agropecuarias, Santiago, Chile

Acacia greggii, blend

Atriplex canescens, PMT-1041

Atriplex canescens, P-15644

Atriplex canescens, NM-155

Atriplex canescens, NM-1093

Atriplex canescens, C-225

Atriplex canescens, NM-572

Atriplex canescens, NM-1241

Atriplex canescens, NM-812

Atriplex canescens, NM-621

Atriplex lentiformis, PI-330671

Atriplex polycarpa, PI-399192

Atriplex semibaccata 'Corto'

Eysenhardtia texana, PMT-629

Fallugia paradoxa, PMT-4258

Kochia prostrata, A-18227

Kochia prostrata, PI-314929

Leucaena retusa, PMT-632

Menodora scabra, A-17773

Pavonia lasiopetala, PMT-1229

Sutherlandia frutescens, PI-173177

Sutherlandia microphylla, PI-203806

English Clays Lovering Pochin & Co., Ltd., Cornwall, England

Lotus corniculatus 'Mackinaw'

Lotus corniculatus 'Cascade'

Lotus corniculatus 'Empire'

Lotus corniculatus 'Viking'

Lotus corniculatus 'Granger'

Lotus corniculatus var. arvensis 'Kalo'

Lotus pedunculatus 'Marshfield'

Plant Breeding Department, Dunns Seed & Grain Ltd., Wiltshire,
England

Bromus carinatus, BN-6398

Bromus marginatus, BN-20557

Bromus marginatus 'Bromar'

Bromus sub. nom. sitchensis, BN-20568

Bromus unioloides, BN-1191

Bromus unioloides, BN-20546

Bromus unioloides, BN-20575

Bromus unioloides, PI-385317

Bromus cf. valdivianus, BN-20573

- Astragalus chinensis, PI-89399
Astragalus cicer, T-6508
Astragalus cicer 'Lutana'
Astragalus falcatus, PI-66440
Astragalus falcatus, T-6676
Astragalus falcatus, T-6677
Astragalus glycyphyllos, PI-297337
Astragalus glycyphyllos, PI-325207
Astragalus sinicus, PI-150557
Cajanus cajan, PI-218066
Canavalia ensiformis, PI-368146
Canavalia gladiata, PI-338585
Crotalaria juncea, T-6760
Dolichos lablab, PI-319473
Hedysarum hedsaroides, PI-314089
Lupinus polyphyllus, PI-414242
Phaseolus lunatus, PI-186340
Prosopis juliflora, BN-23409
Pueraria lobata, PI-186600
Pueraria phaseoloides, PI-291132
Sesbania punicea, PI-322628
Sesbania sesban, PI-271227
Sesbania speciosa, PI-219851

Trifolium subterraneum, PI-268067

Trifolium subterraneum, PI-311499

Trifolium foenum-graecum, PI-199990

Trifolium vexillata, PI-365096

Hankkijan Kasvinjalostuslaitos, Hankkija Plant Breeding Institute,
Hyryla, Finland

Vicia narbonensis, PI-170017

Vicia narbonensis, PI-203156

Vicia narbonensis, PI-225732

Vicia narbonensis, PI-230275

Vicia narbonensis, PI-290739

Vicia narbonensis, PI-294297

Vicia narbonensis, PI-294302

Vicia narbonensis, PI-294303

Vicia narbonensis, PI-303064

Vicia narbonensis, PI-314503

Vicia narbonensis, PI-340146

Vicia narbonensis, PI-340147

Vicia narbonensis, PI-340149

Vicia narbonensis, PI-340150

Vicia narbonensis, PI-340151

Vicia narbonensis, PI-340152

Vicia narbonensis, PI-340153

Vicia narbonensis, PI-340154

Vicia narbonensis, PI-340155

Vicia narbonensis, PI-340156

Vicia narbonensis, PI-349272

Mr. Guy Dhomme, Agriculteur, Clamart, France

Lespedeza capitata, NJ-177

Ministerio de Agricultura, Quetzaltenango, Guatemala

Agropyron dasystachyum 'Critana'

Agropyron desertorum 'Nordan'

Agropyron inerme 'Whitmar'

Agropyron intermedium 'Greenar'

Agropyron riparium 'Sodar'

Agropyron sibiricum 'P-27'

Agropyron smithii 'Barton'

Agropyron trachycaulum 'Primar'

Agropyron trichophorum 'Luna'

Agropyron trichophorum 'Topar'

Elymus junceus 'Vinall'

Agriculture & Fisheries Department, Hong Kong Government, Kowloon,
Hong Kong

Atriplex semibaccata 'Corto'

Cytogenetics Section, Agril. College, Bangalore, India

Dolichos axillaris, PI-364785

Dolichos baumannii, PI-283250

Dolichos falcatus, PI-364788

Dolichos formosus, PI-319472

Dolichos lablab, PI-401553

Dolichos lignosus, PI-178238

Dolichos uniflorus, PI-364789

Elymus vancouverensis, NJ-425

Dr. Gilberto Golinelli, Bologna, Italy

Pueraria lobata, AM-3115

Centro Regionale Agrario Sperimentale, Alberti, Italy

Phalaris aquatica, BN-10873

Lesotho Agricultural College, Maseru, Lesotho

Astragalus cicer 'Cicar'

Rancho Experimental La Campana, Chihuahua, Mexico

Andropogon barbinodis, PMT-33

Andropogon scoparius, PMT-1236

Atriplex canescens, PMT-1041

Bothriochloa ischaemum 'Plains'

Bouteloua curtipendula, PMT-328

Bouteloua curtipendula, PMT-470

Bouteloua gracilis, PMT-697

Buchloe dactyloides, PMT-1181

Cassia fasciculata, PMT-1985

Cenchrus ciliaris 'Higgins'

Cenchrus ciliaris 'Nueces'

Desmanthus illinoensis, PMT-2851

Desmanthus velutinus, PMT-2406

Dichanthium sp., PMT-587

Engelmannia pinnatifida, PMT-874

Eragrostis pilifera 'Mason'

Helianthus maximiliani 'Aztec'

Panicum coloratum 'Selection 75'

Panicum virgatum 'Alamo'

Simsia calva, PMT-856

Sorghastrum nutans, PMT-802

Trichachne californica, PMT-389

J. C. Memmott, Viveros Nuevo Casas Grandes, Chihuahua, Mexico

Bouteloua eriopoda 'Nogal'

State Department, Kathmandu, Nepal

Agropyron desertorum 'Nordan'

Agropyron sibiricum 'P-27'

Agropyron trachycaulum 'Primar'

Agropyron trichophorum 'Luna'

Festuca ovina duriuscula 'Durar'

Poa ampla 'Sherman'

Black Forest Station, South Canterbury, New Zealand

Agropyron cristatum 'Nordan'

Agropyron smithii 'Arriba'

Atriplex canescens, NM-155

Atriplex canescens, NM-812

Bothriochloa ischaemum 'Ganada'

Bouteloua curtipendula, NM-368

Bouteloua curtipendula 'Vaughn'

Bouteloua eriopoda 'Nogal'

Bouteloua gracilis, NM-118

Bouteloua gracilis 'Lovington'

Cercocarpus montanus 'Montane'

Eurotia lanata, NM-333

Hilaria jamesii 'Viva'

Oryzopsis hymenoides 'Paloma'

Sanguisorba minor, A-14173

Sporobolus airoides, NM-184

Sporobolus airoides, C-14

Sporobolus wrightii, A-3659

Yucca elata 'Bonita'

Marine Fish Division, Bedford Institute, Dartmouth, Nova Scotia

Panicum amarulum, PI-421136

Cereal and Forage Crops, Research Branch, Experimental Farm, Nappan,
Nova Scotia

Lotus corniculatus 'Mackinaw'

Estacao de Melhoramento de Plantas, Elvas, Portugal

Hedysarum coronarium, BN-15610

Hedysarum coronarium, PI-283343

Onobrychis viciifolia 'Perly'

Onobrychis viciifolia, PI-171726

Phalaris aquatica, BN-10872

Phalaris aquatica, BN-10873

USAID, United States Embassy, Mogadiscio, Somalia

Alysicarpus vaginalis, PI-219829

Alysicarpus vaginalis, PI-257667

Prosopis tamarugo, T-01467

Seed Production Advisor, State Department, Tunis, Tunisia

Agropyron desertorum 'Nordan'

Agropyron elongatum 'Alkar'

Agropyron smithii 'Rosana'

Dactylis glomerata 'Berber'

Ehrharta calycina 'Mission'

Eragrostis lehmanniana 'A-68'

Oryzopsis hymenoides 'Nezpar'

Germination Test Results on NPMC Seed Inventory

In 1979 germination tests were conducted to determine the quality of seed harvested at the center in 1978. In conjunction with this, seed on inventory from previous years of the same species as those produced in 1978 was tested. This allowed full utilization of the germination cabinet and will provide valuable information on viability of aging seed. The results will be used to determine when certain lots of seed need to be reproduced to maintain viability. Also, seed that display no or very low germination can be discarded thus reducing the seed inventory and increasing efficiency.

Grasses

Name, PI Number, and Seed Year	Percent Germination	Name, PI Number, and Seed Year	Percent Germination
<u><i>Agropyron smithii</i></u>			
BN-10876-72	82	PI-414433-78	2
BN-16317-72	59	PI-414435-78	0
PI-421274-67	11	PI-414436-78	0
PI-421274-70	18	PI-414438-78	4
PI-432399-69	24	PI-414439-78	1
PI-432399-73	54	PI-414440-78	0
PI-432400-69	18		
PI-432400-73	18		
<u><i>Agrostis tenuis</i></u>			
BN-6822-60	87	<u><i>Anthepona pubescens</i></u>	
BN-6822-67	98	BN-15856-64	16
BN-20494-75	100		
<u><i>Ammophila breviligulata</i></u>			
BN-9026-64	42	<u><i>Arundinella anomala</i></u>	
<u><i>Ampelodesmos mauritanicus</i></u>			
BN-15607-64	20	BN-11260-60	76
<u><i>Anthepona pubescens</i></u>			
PI-364380-70	26	<u><i>Bothriochloa caucasica</i></u>	
PI-390955-74	48	PI-78578-63	26
PI-409111-76	44	PI-78578-64	24
PI-414425-76	0		
PI-414441-78	13	<u><i>Bothriochloa ischaemum</i></u>	
PI-414445-78	4	PI-380756-78	2
PI-414420-78	52	PI-380757-78	18
PI-414425-78	10	PI-406642-78	14
PI-414429-78	60	PI-406643-78	6
PI-414430-78	64		
PI-414433-78	24	<u><i>Bouteloua curtipendula</i></u>	
PI-414434-78	0	BN-1797-64	60
PI-414437-78	0	BN-1797-67	70
PI-414442-78	6	BN-2524-66	62
PI-414443-78	2	BN-2524-70	27
PI-414444-78	40	BN-5441-72	78
PI-409111-78	3	BN-10721-72	63
PI-414421-78	0	BN-16178-72	81
PI-414419-78	12	BN-17989-66	72
PI-414422-78	0	PI-421281-60	58
PI-414424-78	2	PI-421281-67	63
PI-414426-78	0	PI-421281-72	65
PI-414427-78	0		
PI-414428-78	1	<u><i>Brachypodium phoenicoides</i></u>	
PI-414429-78	2	BN-20524-75	8
PI-414432-78	0		

<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>	<u>Name, PI Number and Seed Year</u>	<u>Percent Germination</u>
<u><i>Briza australis</i></u>		<u><i>Elymus arenarius</i></u>	
BN-20528-73	22	PI-319819-69	4
<u><i>Briza maxima</i></u>		PI-319819-72	16
BN-19208-69	16	PI-345979-73	16
		PI-348865-73	38
		PI-348865-74	80
<u><i>Briza media</i></u>		<u><i>Elymus canadensis</i></u>	
PI-369835-74	32	BN-2842-66	0
PI-369837-75	68	BN-3009-61	0
PI-369839-74	56		
PI-369840-74	24	<u><i>Elymus glaucus</i></u>	
<u><i>Bromus diandrus</i></u>		BN-20615-73	8
BN-20543-74	74	<u><i>Elymus paboanus</i></u>	
<u><i>Bromus japonicus</i></u>		PI-316234-68	42
BN-18202-76	68	PI-316234-69	64
<u><i>Bromus madritensis</i></u>		<u><i>Elymus patagonicus</i></u>	
BN-20556-74	68	PI-297898-66	14
<u><i>Bromus veralis</i></u>		<u><i>Elymus salinas</i></u>	
BN-8001-69	2	BN-14618-62	6
<u><i>Calamagrostis arundinacea</i></u>		<u><i>Elymus sibiricus</i></u>	
PI-345968-78	92	PI-326266-67	8
<u><i>Dactyloctenium giganteum</i></u>		<u><i>Eragrostis atrovirens</i></u>	
PI-364505-70	8	BN-19638-66	12
<u><i>Danthoniopsis dinteri</i></u>		<u><i>Eragrostis bicolor</i></u>	
PI-364506-75	76	PI-409817	88
		PI-409817-78	68
<u><i>Deschampsia media</i></u>		<u><i>Eragrostis domingensis</i></u>	
BN-20603-73	4	BN-20627-72	87
<u><i>Digitaria chenaliera</i></u>		<u><i>Eragrostis heteromera</i></u>	
PI-364517-75	84	PI-410319-78	36
<u><i>Digitaria species</i></u>		<u><i>Eragrostis lehmanniana</i></u>	
PI-361875-78	8	BN-12084-78	44
<u><i>Echinopogon nutans</i></u>		<u><i>Eragrostis superba</i></u>	
PI-257717-60	20	PI-364833-77	80
PI-257717-70	60	PI-364833-78	72
<u><i>Elymus akmolinensis</i></u>		<u><i>Eragrostis species</i></u>	
BN-20609-74	60	BN-8965-60	56

<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>	<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>
<u>Erianthus coarctatus</u>		<u>Lamarkia aurea</u>	
BN-18759-67	48	BN-20704-73	80
<u>Eriochloa crebra</u>		<u>Lasiochloa longifolia</u>	
PI-257735-60	58	PI-368890-71	12
		PI-368891-71	28
<u>Eulalia fulva</u>		<u>Leptochloa dubia</u>	
PI-249139-59	52	BN-14773-61	56
PI-249139-75	52	PI-421042	4
<u>Eulaliopsis binata</u>		<u>Lolium remotum</u> var. <u>aristatum</u>	
PI-244666-59	16	BN-20708-76	56
<u>Festuca ampla</u>		<u>Melica ciliata</u> ssp. <u>magnolii</u>	
BN-20634-73	78	BN-20715-74	44
<u>Festuca arundinacea</u>		<u>Melica persica</u> ssp. <u>inaequiglumis</u>	
PI-380843-78	60	PI-384897-72	16
<u>Festuca glauca</u> ssp. <u>glauca</u>		<u>Ottochloa nodosa</u>	
BN-20649-74	36	PI-259417-60	68
<u>Festuca ovina</u>		<u>Panicum anceps</u>	
PI-380854-78	34	BN-8456-61	86
		BN-8456-64	80
<u>Festuca pratensis</u>		BN-8456-75	80
PI-383657-78	80	BN-8456-76	82
<u>Festuca sulcata</u> ssp. <u>pseudodalmatica</u>		BN-13552-64	72
BN-20676-76	62	BN-13552-65	80
		BN-13553-64	50
<u>Festuca sulcata</u> ssp. <u>vallesiana</u>		BN-13553-65	80
BN-20675-75	80	<u>Panicum capillare</u>	
BN-20675-76	48	BN-20735-74	62
<u>Festuca supina</u>		<u>Panicum deustum</u>	
BN-20678-76	72	PI-410226-78	70
<u>Festuca violacea</u> var. <u>picta</u>		<u>Panicum plenum</u>	
BN-20683-74	32	BN-18600-67	28
BN-20683-75	48	<u>Panicum texanum</u>	
		BN-11637-67	54
<u>Hyparrhenia hirta</u>		<u>Panicum virgatum</u>	
PI-273930-78	20	PI-315724-69	68
<u>Ischaemum indicum</u> var. <u>longipilum</u>		PI-315724-75	82
BN-14805-64	60	PI-315725-66	58
		PI-315725-75	24
		PI-315725-78	65

Name, PI Number, and Seed Year	Percent Germination	Name, PI Number, and Seed Year	Percent Germination
<u>Panicum virgatum</u>		<u>Panicum virgatum</u> var. <u>cubense</u>	
PI-421138-74	13	BN-18582-69	80
PI-421138-75	15	BN-18582-75	54
PI-421138-77 (H)	23.5	BN-18582-77	48
PI-421138-77 (D-Early)	11	PI-315727-61	24
PI-421138-77 (D-Late)	10	PI-315727-62	4
PI-421138-78 (Light)	0	PI-315727-64	36
PI-421138-78 (Broken)	7.5	PI-315727-65	80
PI-421520-71	56.5	PI-315728-67	56
PI-422016-66	70	PI-315728-69	72
PI-422016-71	93	PI-315728-75	66
PI-422016-72	45		
BN-8354-74	14	<u>Phalaris arundinacea</u>	
BN-8354-77	64	PI-345662-78	80
BN-8357-75	74		
BN-8357-76	68		
BN-8574-66	62.5	<u>Phalaris canariensis</u>	
BN-8617-75	46	PI-380166-78	28
BN-8617-77	93		
BN-9011-75	62		
BN-9984-77	60	<u>Piptochaetium lejopodum</u>	
BN-9985-77	62	PI-368989-73	56
BN-10864-65	36		
BN-11361-64	18	<u>Piptochaetium montevidense</u>	
BN-11361-76	37	PI-368990-74	28
BN-11361-76	66		
BN-11361-77	80	<u>Poa alpina</u>	
BN-11362-75	62	PI-284251-78	32
BN-12123-60	32		
BN-14669-77	84	<u>Poa badensis</u>	
BN-17965-66	74	BN-20755-78	28
BN-17965-68	76		
BN-17965-69	68	<u>Poa compressa</u>	
BN-17966-66	34	Commercial	60
BN-18943-67	36		
BN-19530-69	37	<u>Poa nemoralis</u>	
		BN-20766-78	84
<u>Panicum virgatum</u> var. <u>cubense</u>		PI-290727-78	80
SC-58-23-63	18		
BN-9195-66	58	<u>Poa subcaerulea</u>	
BN-10997-71	10	BN-20772-75	96
BN-12105-61	16		
BN-12105-75	76	<u>Psilurus aristatus</u>	
BN-12105-76	68	BN-20782-73	64
BN-12106-75	46		
BN-12107-61	36	<u>Sesleria heufleriana</u>	
BN-12107-76	41	PI-314105-65	30
BN-12107-A-77	76	PI-314105-69	4
BN-12107-C-77	56		
BN-12107-D-77	70	<u>Setaria macrostachya</u>	
BN-12108-75	72	BN-14775-63	9
BN-12108-76	72	PI-421049-60	38
BN-12109-61	28		
BN-12109-75	41	<u>Sporobolus asper</u> var. <u>hookeri</u>	
BN-12109-76	22		
BN-12110-61	44		
BN-12110-75	80	BN-22381-71	100
BN-12111-61	30		
BN-12111-75	52		
BN-12111-76	70		
BN-18582-66	2		
BN-18582-67	70		
BN-18582-67	17		
BN-18582-68	64		

<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>	<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>
<u>Sporobolus asper var. hookeri</u>		<u>Adesmia tenella</u>	
BN-22382-71	100	PI-285113-65	36% and 48% hard seed
<u>Themeda triandra</u>		PI-285114-65	84
PI-4-0373-78	8	PI-285114-75	32
<u>Thuarea involuta</u>		<u>Aeschynomene americana</u>	
PI-318746-67	70	BN-7013-50	7% and 4% hard seed
<u>Tricholaena monachne</u>		PI-219826-58	2% and 20% hard seed
PI-166381-58	8	<u>Aeschynomene falcata</u>	
<u>Legumes and Others</u>		PI-364378-70	32% and 68% hard seed
<u>Achillea asiatica</u>		<u>Aeschynomene indica</u>	
PI-380611-72	8	PI-257662-65	24% and 8% hard seed
<u>Achillea conferta</u>		<u>Aeschynomene paniculata</u>	
PI-380610-72	96	PI-322288-66	24% and 4% hard seed
<u>Achillea santolina</u>		<u>Aeschynomene species</u>	
PI-380612-72	100	PI-322294-66	60% and 24% hard seed
PI-380614-72	92	<u>Alyssum murale transylvanica</u>	
<u>Achillea species</u>		BN-18101-70	8
PI-380613-72	80	BN-18101-71	16
PI-383527-73	64	<u>Anthyllis tetraphylla</u>	
PI-383528-73	32	PI-292846-65	78
<u>Adenocarpus foliolosus</u>		PI-297878-65	94
PI-368849-71	20% and 48% hard seed	<u>Anthyllis vulneraria</u>	
<u>Adesmia angustifolia</u>		PI-283184-68	38% and 56% hard seed
PI-283159-61	8% and 4% hard seed	<u>Arachis species</u>	
PI-285103-65	68% and 24% hard seed	PI-263393-78	75
PI-285104-65	24% and 28% hard seed	<u>Arenaria serpyllifolia</u>	
PI-285104-75	48% and 24% hard seed	PI-292786-62	80
PI-285105-65	4% and 80% hard seed	<u>Argemone alba</u>	
PI-285105-75	56% and 12% hard seed	BN-14687-62	42
<u>Adesmia bicolor</u>		<u>Argemone mexicana</u>	
PI-409099-75	10% and 30% hard seed	BN-22609-62	82
<u>Adesmia muricata</u>		<u>Argyrolobium linnaeum</u>	
PI-186274-75	4% and 96% hard seed	PI-302847-63	20% and 48% hard seed
PI-285110-65	8% and 92% hard seed	<u>Argyrolobium uniflorum</u>	
<u>Adesmia tenella</u>		PI-233223-57	8% and 36% hard seed
PI-285112-65	80		
PI-285112-75	32% and 8% hard seed		

<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>	<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>
<u><i>Argyrolobium virgatum</i></u>		<u><i>Cassia abbreviata</i></u>	
PI-199311-57	0% to 64% hard seed	PI-315883-66	0% and 30% hard seed
<u><i>Atylosia mormorata</i></u>		<u><i>Cassia bonariensis</i></u>	
BN-16457-60	60% and 20% hard seed	PI-214042-62	28% and 16% hard seed
<u><i>Atylosia scarabaeoides</i></u>		<u><i>Cassia fasciculata</i></u>	
BN-11632-58	30% and 20% hard seed	BN-7005-50	0
BN-11632-59	42% and 6% hard seed	BN-7028-60	0
BN-11632-62	58% and 16% hard seed	BN-18540-67	5% and 58% hard seed
<u><i>Baileya multirada</i></u>		<u><i>Cassia hirsuta</i></u>	
BN-22726-72	36	PI-247405-62	0% and 6% hard seed
BN-22726-75	24	PI-247405-69	24% and 76% hard seed
<u><i>Bauhinia fassoglensis</i></u>		<u><i>Cassia laevigata</i></u>	
PI-277495-61	40	PI-198610-68	32% and 56% hard seed
<u><i>Biserrula pelecinus</i></u>		<u><i>Cassia leshenaultiana</i></u>	
PI-275406-68	24% and 60% hard seed	PI-204365-58	0
PI-276904-68	24% and 60% hard seed	<u><i>Cassia mimosoides</i></u>	
PI-287776-68	12% and 80% hard seed	BN-11633-62	0
PI-287777-62	12% and 52% hard seed	PI-207716-56	16% and 4% hard seed
PI-287778-68	44% and 48% hard seed	<u><i>Cassia patellaria</i></u>	
PI-287779-68	24% and 76% hard seed	PI-204367-58	0
PI-287780-62	24% and 72% hard seed	<u><i>Cassia pleurocarpa</i></u>	
PI-287781-62	30% and 60% hard seed	PI-238253-59	68
PI-287782-62	14% and 76% hard seed	<u><i>Cassia rotundifolia</i></u>	
PI-365645-73	76	BN-11634-62	0
PI-365647-73	32% and 44% hard seed	<u><i>Cassia tomentosa</i></u>	
PI-186284-62	36% and 48% hard seed	BN-5305-45	16% and 36% hard seed
PI-287777-63	21% and 68% hard seed	<u><i>Cassia uniflora</i></u>	
<u><i>Blackiella conduplicata</i></u>		PI-188874-49	75% and 5% hard seed
PI-415865-78	4	PI-188874-69	44% and 24% hard seed
<u><i>Caragana arforescens</i></u>		<u><i>Centaurea maculosa</i></u>	
T-6710-62	80	BN-22493-73	44
<u><i>Caragana boisi</i></u>		<u><i>Centaurea montana</i></u>	
PI-310388-65	70	BN-22567-72	20% and 56% hard seed
<u><i>Caragana microphylla</i></u>		<u><i>Cerastrus orhiculata</i></u>	
PI-107664-58	4	Commercial-70	0
<u><i>Carex macrochaeta</i></u>			
BN-4032-57	0		
<u><i>Carex pseudocyperus</i></u>			
BN-20449-73	68		
<u><i>Carex species</i></u>			
PI-383624-78	84		

Name, PI Number, and Seed Year	Percent Germination	Name, PI Number, and Seed Year	Percent Germination
<u>Ceratonia siliqua</u>		<u>Coronilla viminalis</u>	
PI-365410-70	10% and 70% hard seed	PI-246729-58	72% and 25% hard seed
<u>Chrysanthemum leucanthemum</u>		<u>Crambe abyssinica</u>	
BN-23266-73	80	PI-247310-73	96
<u>Cistus villosus</u>		<u>Crepis kotschyana</u>	
T-6362-69	72% and 28% hard seed	PI-310392-68	64
<u>Clitoria rubiginosa</u>		<u>Crotalaria alata</u>	
PI-298605-68	80	PI-249681-60	32% and 24% hard seed
<u>Clitoria ternatea</u>		<u>Crotalaria anagyroides</u>	
BN-8653-56	8% and 24% hard seed	PI-219834-62	8
PI-209591-62	20	PI-316951-65	28% and 52% hard seed
PI-209592-62	10	PI-316952-65	24% and 44% hard seed
PI-227163-57	24% and 32% hard seed	PI-316955-65	28% and 72% hard seed
PI-258379-63	30% and 50% hard seed	PI-336998-67	90
PI-283231-66	0		
PI-283232-66	40	<u>Crotalaria angyrolobioides</u>	
PI-283233-64	10% and 10% hard seed	PI-200216-53	2% and 16% hard seed
PI-283234-66	20	PI-200216-56	4% and 76% hard seed
PI-283236-66	15% and 25% hard seed		
PI-275316-60	30	<u>Crotalaria astragalina</u>	
PI-319465-66	60% and 30% hard seed	PI-199321-61	0% and 98% hard seed
PI-322366-68	28% and 48% hard seed	PI-257694-61	84
<u>Colutea arforescens</u>		PI-274945-59	68% and 4% hard seed
BN-21630-70	8% and 24% hard seed		
<u>Coreopsis grandiflora</u>		<u>Crotalaria atrorubens</u>	
BN-22569-74	72	PI-274946-60	0% and 92% hard seed
<u>Coronilla cretica</u>		<u>Crotalaria eriocarpa</u>	
PI-104564-48	7% and 17% hard seed	PI-316956-65	56% and 32% hard seed
<u>Coronilla scorpioides</u>		PI-322374-66	28% and 60% hard seed
T-6741-78	40% and 60% hard seed	<u>Crotalaria falcata</u>	
PI-186299-62	60% and 40% hard seed	PI-247123-60	12% and 84% hard seed
<u>Coronilla varia</u>		<u>Crotalaria grantiana</u>	
PI-121119-44	12% and 52% hard seed	PI-316937-65	40% and 12% hard seed
PI-121119-74	36% and 62% hard seed	PI-316938-65	68% and 24% hard seed
PI-286203-65	12% and 68% hard seed	PI-322375-66	28% and 20% hard seed
PI-308009-69	56% and 32% hard seed	PI-322376-66	48% and 24% hard seed
PI-344573-71	16% and 60% hard seed	<u>Crotalaria incana</u>	
PI-344573-72	24% and 68% hard seed	BN-8576-56	32% and 44% hard seed
PI-380805-78	44% and 48% hard seed	BN-8576-61	22% and 70% hard seed
PI-380806-78	24% and 52% hard seed	BN-9085-56	0
PI-380809-72	56% and 36% hard seed	BN-9085-65	12% and 32% hard seed
PI-380809-78	28% and 40% hard seed	PI-182795-61	0% and 98% hard seed
PI-380809-75	54% and 26% hard seed	PI-192955-62	7% and 93% hard seed
PI-384836-78	22% and 52% hard seed	PI-199323-51	24% and 70% hard seed
PI-384840-78	40% and 58% hard seed	PI-199323-56	44% and 44% hard seed
PI-400297-78	30% and 64% hard seed		

Name, PI Number, and Seed Year	Percent Germination	Name, PI Number, and Seed Year	Percent Germination
<u>Crotalaria incana</u>		<u>Crotalaria retusa</u>	
PI-199326-51	20% and 72% hard seed	PI-274951-61	54% and 46% hard seed
PI-199326-56	24% and 52% hard seed	PI-274951-67	1% and 31% hard seed
PI-200215-57	0% and 92% hard seed	BN-14695-62	14% and 2% hard seed
PI-244278-52	2% and 80% hard seed		
PI-244278-57	18% and 38% hard seed		
<u>Crotalaria intermedia</u>		<u>Crotalaria saltiana</u>	
PI-238266-58	0% and 8% hard seed	PI-316942-65	36% and 56% hard seed
BN-14740-65	4% and 30% hard seed	PI-316943-65	36% and 44% hard seed
<u>Crotalaria juncea</u>		PI-322386-66	32% and 68% hard seed
BN-274948-59	20	PI-322387-66	4% and 48% hard seed
BN-316208-65	70	PI-322388-66	4% and 96% hard seed
<u>Crotalaria laburnifolia</u> ssp. <u>australia</u>		PI-322389-66	0% and 92% hard seed
BN-364466-70	10% and 70% hard seed	<u>Crotalaria sericea</u>	
<u>Crotalaria lanceolata</u>		PI-238268-58	34% and 2% hard seed
PI-316939-65	24% and 76% hard seed	PI-238268-62	20% and 12% hard seed
PI-316940-65	0% and 92% hard seed	<u>Crotalaria spectabilis</u>	
PI-316954-65	40% and 60% hard seed	PI-316944-65	36% and 60% hard seed
PI-322378-66	20% and 72% hard seed	PI-316945-65	70% and 20% hard seed
PI-322409-66	8% and 92% hard seed	PI-322403-66	20% and 80% hard seed
PI-364468-70	0% and 80% hard seed	BN-8866-58	26% and 24% hard seed
<u>Crotalaria leioloba</u>		<u>Crotalaria stipularia</u>	
PI-217907-62	2% and 94% hard seed	PI-316946-65	32% and 20% hard seed
<u>Crotalaria medicaginea</u>		PI-316947-65	52% and 16% hard seed
PI-275318-67	40% and 60% hard seed	PI-316948-65	20% and 60% hard seed
<u>Crotalaria muconata</u>		<u>Crotalaria trifoliastrum</u>	
PI-199322-62	12% and 64% hard seed	PI-238269-62	80
PI-209030-52	0% and 100% hard seed	<u>Crotalaria usoramoensis</u>	
<u>Crotalaria ochroleuca</u>		PI-168575-59	6% and 10% hard seed
PI-248455-60	4% and 80% hard seed	PI-168575-61	23% and 25% hard seed
PI-274767-60	4% and 94% hard seed	PI-316949-65	48% and 40% hard seed
<u>Crotalaria paulina</u>		BN-10815-61	11% and 22% hard seed
PI-316941-65	68% and 20% hard seed	<u>Crotalaria vitellina</u>	
<u>Crotalaria pumila</u>		BN-5831-62	36% and 48% hard seed
BN-5833-61	0% and 100% hard seed	<u>Crotalaria species</u>	
BN-1293-48	2% and 23% hard seed	PI-316953-65	80
<u>Crotalaria quinquefolia</u>		PI-409729-76	10% and 80% hard seed
PI-270287-60	80	PI-409731-76	8% and 80% hard seed
<u>Crotalaria retusa</u>		PI-409731-78	4
PI-238267-62	26% and 16% hard seed	<u>Cyamopsis tetragonoloba</u>	
		PI-275088-60	80
		PI-275322-60	80
		PI-275323-60	96
		<u>Cyperus esculentus</u>	
		PI-337550-68	0
		PI-378899-72	80

<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>	<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>
<u>Dalea alopecuroides</u>		<u>Desmodium sandwicense</u>	
PI-315689-68	8% and 92% hard seed	PI-316220-65	56% and 44% hard seed
<u>Dalea oaxacana</u>		PI-316223-65	36
PI-315692-41	4% and 28% hard seed	PI-316228-65	20
<u>Desmanthes illinoensis</u>		PI-319469-66	80
BN-6978-57	48% and 36% hard seed	PI-364513-70	48% and 40% hard seed
BN-6978-66	16% and 68% hard seed	PI-364513-74	32% and 64% hard seed
<u>Desmanthes virgatus</u>		<u>Desmodium uncinatum</u>	
BN-12427-61	24% and 50% hard seed	PI-241430-63	12% and 20% hard seed
<u>Desmodium aparines</u>		PI-241431-64	80
BN-11699-60	20% and 12% hard seed	PI-319470-66	70
BN-11699-66	8% and 92% hard seed	PI-337653-68	20% and 4% hard seed
<u>Desmodium canum</u>		PI-355746-69	84% and 12% hard seed
BN-11689-61	32% and 4% hard seed	PI-364514-70	72% and 4% hard seed
BN-12047-64	56% and 4% hard seed	<u>Desmodium species</u>	
BN-12047-65	64% and 4% hard seed	PI-364790-78	60% and 24% hard seed
<u>Desmodium intortum</u>		BN-18751-68	70% and 28% hard seed
PI-188-58-49	4% and 40% hard seed	<u>Dianthus armeria</u>	
PI-244280-57	28% and 28% hard seed	BN-19689-75	78
PI-244280-68	94% and 4% hard seed	BN-19689-76	24
PI-266211-59	70% and 18% hard seed	BN-19689-70	99
PI-295877-65	57	<u>Dolichos lablab</u>	
PI-299089-66	96	BN-4136-48	7.5
PI-317894-65	60% and 12% hard seed	PI-189719-49	7% and 10% hard seed
PI-319468-66	48% and 36% hard seed	PI-246129-57	0
PI-338594-68	6	PI-311124-65	20
PI-355745-69	44% and 40% hard seed	PI-311155-65	0
PI-364511-70	100	PI-316569-65	40
<u>Desmodium perplexum</u>		PI-319473-66	100
BN-10420-58	88	PI-321080-66	30
<u>Desmodium rensonii</u>		PI-321081-66	100
BN-4164-45	0	PI-322532-66	100
<u>Desmodium rigidum</u>		PI-337655-68	60
BN-4519-51	8	PI-401553-75	80
BN-4519-68	32% and 60% hard seed	<u>Dolichos minimus</u>	
<u>Desmodium sandwicense</u>		BN-12430-62	54% and 2% hard seed
PI-275752-60	0	BN-12430-75	38% and 50% hard seed
PI-275753-60	0	BN-12433-65	28
PI-275754-60	8	<u>Dorycnium hirsutum</u>	
PI-275755-60	12	BN-9871-64	56
PI-275756-60	8	<u>Dorycnium intermedium</u>	
PI-297890-63	48% and 4% hard seed	PI-325313-67	20% and 64% hard seed
PI-315216-65	32% and 4% hard seed	<u>Dorycnium pentaphyllum ssp. herbaceum</u>	
PI-316216-65	40	PI-308013-67	64% and 12% hard seed

<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>	<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>
<u>Dorycnium rectum</u>		<u>Glycine javanica</u> ssp. <u>micrantha</u> var. <u>paniculata</u>	
PI-238291-60	56% and 8% hard seed	PI-304378-64	84
PI-274460-60	76		
<u>Dorycnopsis gerardii</u>		<u>Glycine max</u>	
PI-289650-62	8% and 80% hard seed	PI-315701-60	83
<u>Enchytraea tomentosa</u>		<u>Glycine ussuriensis</u>	
PI-279185-62	0	BN-10368-59 PI-163453-66	11% and 32% hard seed 40
<u>Enterolobium cyclocarpum</u>		<u>Glycine species</u>	
PI-183904-48	0% and 100% hard seed	BN-10821-62	26% and 10% hard seed
<u>Eriosema floribundum</u>		<u>Hedysarum alpinum</u> var. <u>americanum</u>	
PI-322537-66	10% and 10% hard seed	PI-377546-72	60
PI-322538-66	30		
<u>Eriosema species</u>		<u>Hedysarum argenteum</u>	
PI-322539-66	70	PI-314088-65	28% and 4% hard seed
<u>Gaillardia pulchella</u>		<u>Hedysarum coronarium</u>	
BN-19639-69	28	BN-15610-64	0
BN-19639-73	14	PI-173372-48	32% and 16% hard seed
BN-19639-74	4	PI-173372-68	0% and 100% hard seed
<u>Galactia acapulcensis</u>		PI-283343-68	10% and 90% hard seed
PI-188883-66	4% and 96% hard seed	PI-283345-68	50% and 20% hard seed
<u>Galega officinalis</u>		PI-283347-68	0% and 60% hard seed
PI-198929-51	8% and 36% hard seed	PI-305507-64	80
PI-198929-53	28% and 32% hard seed	PI-430368-77	50% and 20% hard seed
PI-198929-57	12% and 8% hard seed	PI-430369-77	20% and 60% hard seed
PI-251825-60	36% and 16% hard seed	PI-430670-77	10% and 90% hard seed
PI-283238-63	40% and 24% hard seed		
PI-283238-73	34% and 24% hard seed	<u>Hedysarum hedsaroides</u>	
PI-283238-74	8% and 4% hard seed	PI-314089-65	16
PI-296261-73	36% and 32% hard seed		
PI-296361-74	28% and 12% hard seed	<u>Hedysarum humile</u>	
<u>Galium species</u>		PI-280258-61	10% and 60% hard seed
PI-380864-72	0% and 100% hard seed	PI-280258-64	48% and 52% hard seed
<u>Gillenia trifoliata</u>		PI-311408-65	44
BN-9879-	0	<u>Hedysarum species</u>	
<u>Gleditsia triacanthos inermis</u>		PI-383660-73	36% and 8% hard seed
Commercial-78	5% and 55% hard seed	PI-383661-73	0
Commercial-65	15% and 65% hard seed		
T-7168-51	10% and 10% hard seed	<u>Helianthemum variabile</u>	
<u>Glycine koidzumii</u>		PI-292853-65	68
PI-300996-66	92	PI-292853-70	80
		<u>Helianthemum canadense</u>	
		Commercial-70	14

<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>	<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>
<u><i>Helianthus annuus</i></u>		<u><i>Hippocrepis salzmanni</i></u>	
BN-23261-73	2	PI-287837-64	44% and 16% hard seed
BN-23261-78	14	PI-287839-62	12% and 4% hard seed
<u><i>Helianthus maximiliani</i></u>		PI-287839-64	60% and 40% hard seed
BN-22560-73	44	PI-302906-63	52% and 28% hard seed
		PI-318999-62	40% and 48% hard seed
		PI-319000-63	36% and 32% hard seed
<u><i>Hemerocallis coreana</i></u>		<u><i>Hippocrepis scabra</i></u>	
PI-316602-73	16% and 48% hard seed	PI-319001-63	12% and 4% hard seed
PI-316602-74	30% and 60% hard seed		
<u><i>Hemerocallis species</i></u>		<u><i>Hippocrepis unisiliquosa</i></u>	
BN-22572-72	0% and 40% hard seed	PI-293399-64	60% and 40% hard seed
		PI-321406-69	52
<u><i>Heylandia latebrosa</i></u>		<u><i>Hosockia subpinnata</i></u>	
PI-189494-49	4% and 56% hard seed	PI-283469-63	16% and 50% hard seed
		PI-283470-68	20% and 28% hard seed
<u><i>Hibiscus syriacus</i></u>		PI-283471-68	32% and 20% hard seed
BN-18950-62	0	PI-283472-68	12% and 20% hard seed
BN-18950-68	0	PI-283473-68	8% and 44% hard seed
<u><i>Hippocrepis bicontortu</i></u>		<u><i>Hymenocarpus circinnatus</i></u>	
PI-292398-64	60% and 5% hard seed	PI-292400-64	30% and 70% hard seed
		PI-292401-64	20% and 80% hard seed
<u><i>Hippocrepis bourgaei</i></u>		<u><i>Indigofera endecaphylla</i></u>	
PI-287833-62	8% and 8% hard seed	BN-3712-47	0% and 50% hard seed
PI-287834-62	48	BN-4535-46	0% and 42% hard seed
<u><i>Hippocrepis commutata</i></u>		<u><i>Indigofera hirsuta</i></u>	
PI-287838-62	52% and 20% hard seed	BN-6257-49	0% and 64% hard seed
PI-289657-62	28% and 12% hard seed	BN-9057-56	0% and 44% hard seed
PI-311411-65	64	BN-9711-58	27% and 61% hard seed
PI-318995-62	12% and 8% hard seed	BN-9711-59	2% and 41% hard seed
PI-318996-62	4	BN-9711-62	44% and 40% hard seed
<u><i>Hippocrepis comosa</i></u>		<u><i>Indigofera lindheimeriana</i></u>	
PI-302903-63	8% and 4% hard seed	BN-4459-37	0% and 32% hard seed
<u><i>Hippocrepis glauca</i></u>		<u><i>Indigofera pilosa</i></u>	
PI-287835-62	24	BN-16501-67	8% and 19% hard seed
PI-287835-63	52% and 8% hard seed	<u><i>Indigofera pseudotinctoria</i></u>	
PI-287836-62	12% and 8% hard seed	BN-8353-55	0
PI-311413-65	12	BN-10774-58	7% and 6% hard seed
PI-311414-65	52	BN-10774-61	18% and 8% hard seed
PI-318997-62	52	BN-10774-62	1% and 2% hard seed
		BN-10774-63	36% and 4% hard seed
<u><i>Hippocrepis multisiliquosa</i></u>		<u><i>Indigofera subulata</i></u>	
PI-302904-63	56	BN-16212-60	0% and 4% hard seed
PI-318998-63	8		
<u><i>Hippocrepis salzmanni</i></u>			
PI-287837-62	24		

<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>	<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>
<u>Indigofera species</u>		<u>Lathyrus articulatus</u>	
BN-6446-50	0% and 100% hard seed	PI-308017-66	92
<u>Kochia brevifolia</u>		<u>Lathyrus articulatus ssp. clymenum</u>	
PI-321389-66	0	PI-321024-67	3% and 97% hard seed
<u>Kochia georgei</u>		<u>Latherus cicera</u>	
PI-330673-67	0	PI-174236-64	100
<u>Kochia indica</u>		PI-221463-64	96
PI-330674-67	16	PI-221465-64	100
<u>Kochia prostrata</u>		PI-221467-64	96
PI-330708-67	0	PI-227308-75	44
PI-356819-70	0	PI-237639-64	90
PI-356820-70	0	PI-283498-61	90
PI-356821-70	0	PI-283498-64	95
PI-356822-70	0	PI-283499-61	85
PI-356824-70	0	PI-283499-64	95
PI-356825-70	0	PI-283500-61	80
<u>Laburnum anagyroides</u>		PI-283500-64	100
PI-202741-51	12% and 60% hard seed	PI-283501-61	100
<u>Lathyrus angulatus</u>		PI-283502-61	90
PI-283479-68	34% and 54% hard seed	PI-283504-61	90
<u>Lathyrus annuus</u>		PI-283504-64	100
PI-268322-75	44% and 52% hard seed	PI-283505-61	100
PI-308015-67	30% and 70% hard seed	PI-283506-61	80
<u>Lathyrus aphaca</u>		PI-283506-64	95
PI-175002-62	88	PI-283507-61	95
PI-283480-64	70% and 25% hard seed	PI-283508-61	90
PI-283481-64	84	PI-283508-64	90
PI-283484-75	48% and 48% hard seed	PI-283509-61	90
PI-283485-61	60	PI-283511-61	100
PI-283485-64	76% and 20% hard seed	PI-283512-61	100
PI-286527-62	98	PI-283513-61	100
PI-308016-66	68% and 32% hard seed	PI-283514-61	90
PI-369351-71	52% and 48% hard seed	PI-308018-66	100
<u>Lathyrus articulatus</u>		<u>Lathyrus clymenum</u>	
PI-283486-61	40	PI-283515-61	80
PI-283487-64	70	PI-283516-61	90
PI-283488-75	90	PI-283517-68	94
PI-283489-75	100	PI-283518-61	90
PI-283490-75	82	PI-283518-64	70
PI-283492-75#1	80	PI-283519-64	100
PI-283491-75	80	PI-292791-68	100
PI-283492-75#2	82	PI-308019-66	100
PI-283493-75	86	<u>Lathyrus hirsutus</u>	
PI-283494-75	84	PI-283520-69	0
PI-283495-68	90	PI-283521-65	52% and 16% hard seed
PI-283496-68	80	PI-308021-66	28% and 66% hard seed
<u>Lathyrus inconspicuus</u>		<u>Lathyrus inconspicuus</u>	
PI-255372-61	76% and 22% hard seed	PI-255372-61	76% and 22% hard seed
PI-308022-66	40% and 20% hard seed	PI-308022-66	40% and 20% hard seed
PI-314259-67	28% and 68% hard seed	PI-314259-67	28% and 68% hard seed

<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>	<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>
<u>Lathyrus japonicus</u> var. <u>globra</u>		<u>Lathyrus sativus</u>	
PI-315704-46	25% and 35% hard seed	PI-183498-64	100
PI-315704-73	60% and 40% hard seed	PI-193814-68	84
PI-315705-58	16% and 60% hard seed	PI-193816-68	100
		PI-195607-64	100
		PI-209789-64	96
		PI-212312-64	80
		PI-219923-64	90
		PI-220176-64	90
PI-315706-68	40% and 30% hard seed	PI-21466-64	100
		PI-222203-64	92
<u>Lathyrus latifolius</u>		PI-223269-64	85
<u>Lathyrus latifolius</u> var. <u>splendens</u>		PI-223270-64	100
PI-315707-49#1	4	PI-227450-64	80
PI-315707-49#2	8	PI-232923-64	100
PI-315707-63	14% and 80% hard seed	PI-239866-64	95
PI-315707-64	20% and 74% hard seed	PI-239867-64	90
PI-315707-65#1	20% and 70% hard seed	PI-255368-65	100
PI-315707-65#2	28% and 44% hard seed	PI-268478-60	20
PI-315707-66	64% and 8% hard seed	PI-268478-61	65
PI-315707-68	62% and 30% hard seed	PI-283546-61	50
PI-315707-69	40% and 28% hard seed	PI-283547-64	94
		PI-283548-61	70
		PI-283548-64	95
		PI-283549-64	100
<u>Lathyrus nissolia</u>		PI-283550-61	50
PI-175004-68	28% and 32% hard seed	PI-283550-64	86
PI-283522-68	60% and 40% hard seed	PI-283551-61	70
PI-308025-66	28% and 72% hard seed	PI-283551-64	85
		PI-283552-64	84
		PI-283553-61	60
<u>Lathyrus ochrus</u>		PI-283553-64	84
PI-283526-68	90	PI-283554-68	86
PI-283527-61	80	PI-283555-61	60
PI-283529-68	70% and 30% hard seed	PI-283555-64	88
PI-283530-61	70	PI-283556-64	95
PI-283531-61	80	PI-283557-61	80
PI-283533-64	100	PI-283557-64	96
PI-283535-61	90	PI-283558-68	94
PI-283538-61	90	PI-283559-61	70
PI-283540-68	90	PI-283559-64	84
PI-283544-64	70% and 30% hard seed	PI-283560-61	80
PI-292794-68	95	PI-283560-64	100
PI-308026-66	64% and 36% hard seed	PI-283561-61	80
		PI-283561-64	92
		PI-283563-64	80
<u>Lathyrus ornatus</u> <u>incanus</u>		PI-283564-61	65
PI-315708-48	8% and 72% hard seed	PI-283564-64	85
<u>Lathyrus pratensis</u>		PI-283565-64	95
PI-367822-70	10% and 60% hard seed	PI-283566-64	96
<u>Lathyrus pubescens</u>		PI-283569-64	92
PI-197856-65	30% and 70% hard seed	PI-283570-64	100
		PI-283571-61	70
		PI-283571-64	96
<u>Lathyrus sativus</u>		PI-283572-61	70
		PI-283572-64	96
PI-163293-64	100	PI-283573-64	98
PI-170469-64	100	PI-283574-64	80
PI-170470-64	80	PI-283575-61	30
PI-170477-64	100	PI-283575-64	92
PI-172930-64	80	PI-283576-61	90
PI-173714-64	65	PI-283576-64	94

Name, PI Number, and Seed Year	Percent Germination	Name, PI Number, and Seed Year	Percent Germination
<u>Lathyrus sativus</u>		<u>Lathyrus tuberosus</u>	
PI-283577-64	88	PI-315713-51	0
PI-283578-64	100	PI-315714-57	24
PI-283579-61	70		
PI-283579-64	88	<u>Lebeckia multiflora</u>	
PI-283580-61	50	PI-172280	0% and 8% hard seed
PI-283580-64	92		
PI-283581-61	60	<u>Lechea tenuifolia</u>	
PI-283581-64	92	BN-18520-65	12
PI-283582-64	84		
PI-283583-64	92	<u>Leucaena latisiliqua</u>	
PI-283584-61	80	PI-241167-57	0% and 100% hard seed
PI-283584-64	100	PI-274470-60	30% and 50% hard seed
PI-283585-61	50	PI-281770-61	10% and 5% hard seed
PI-283585-64	100	PI-282692-61	8% and 56% hard seed
PI-283586-64	88	PI-282396-61	8% and 84% hard seed
PI-283587-64	90	PI-316263-69	72% and 28% hard seed
PI-283588-64	90		
PI-283589-64	90	<u>Liatris pycnostachya</u>	
PI-283590-64	76	Commercial	48
PI-283591-64	90		
PI-283592-64	100	<u>Liatris scariosa</u>	
PI-283593-64	100	BN-22591-71	0
PI-283594-64	84	BN-23421-76	0
PI-283595-64	96		
PI-283596-64	80	<u>Lilian perenne</u>	
PI-283597-64	80	BN-22575-72	0
PI-283598-64	92		
PI-283599-64	90	<u>Limonium latifolium</u>	
PI-284119-61	100	BN-22577-72	4
PI-286531-62	92		
PI-358600-70	100	<u>Lotus angustissimum</u>	
PI-358601-70	100	PI-368894-71	32% and 48% hard seed
PI-368031-71	95	PI-368894-73	28% and 68% hard seed
<u>Lathyrus sphaericus</u>		<u>Lotus arenarius</u>	
PI-292796-66	64% and 36% hard seed	PI-311425-62	14% and 82% hard seed
PI-308029-66	54% and 44% hard seed	PI-338643-68	32% and 40% hard seed
<u>Lathyrus sylvestris</u>		<u>Lotus australis</u>	
PI-282562-65	12% and 86% hard seed	PI-246731-57	48% and 16% hard seed
PI-282562-67	50% and 50% hard seed		
PI-282562-69	0% and 30% hard seed		
PI-282765-64	36% and 48% hard seed	<u>Lotus carmeli</u>	
PI-282765-69	36% and 28% hard seed	PI-258396-58	16
PI-290715-68	32% and 60% hard seed	PI-258396-60	4% and 92% hard seed
PI-290715-69	62% and 30% hard seed		
PI-355714-69	66% and 24% hard seed	<u>Lotus caucasicus</u>	
		PI-314090-65	38% and 34% hard seed
<u>Lathyrus tingitanus</u>		PI-314090-68	36% and 56% hard seed
PI-283600-68	75% and 20% hard seed	PI-314090-69	32% and 48% hard seed
PI-283601-68	68% and 32% hard seed	PI-314090-70	24% and 64% hard seed
PI-283602-68	90	PI-314535-67	28% and 38% hard seed
PI-283603-68	96		
PI-292797-64	76% and 24% hard seed		
PI-306680-64	80		
PI-308031-66	86		
PI-346004-71	76% and 24% hard seed		

Name, PI Number, and Seed Year	Percent Germination	Name, PI Number, and Seed Year	Percent Germination
<u>Lotus caucasicus</u>		<u>Lotus corniculatus</u>	
PI-314535-68	32% and 57% hard seed	PI-322556-70	100
PI-314930-68	28% and 70% hard seed	PI-322556-71	88
PI-314930-69	24% and 76% hard seed	PI-383685-75	20% and 60% hard seed
PI-314930-70	28% and 64% hard seed	PI-383686-75	28% and 44% hard seed
PI-315449-67	40% and 36% hard seed	PI-383688-75	30% and 34% hard seed
PI-325369-70	20% and 72% hard seed	PI-383690-75	12% and 32% hard seed
PI-325369-71	52% and 16% hard seed	PI-421026-61A	51% and 1% hard seed
PI-325370-70	20% and 64% hard seed	PI-421026-61B	63% and 1% hard seed
PI-325373-70	38% and 50% hard seed		
PI-325373-71	70% and 24% hard seed		
PI-325374-70	44% and 38% hard seed	<u>Lotus corniculatus</u> var. <u>ciliarus</u>	
PI-325374-71	72% and 20% hard seed	PI-246732-52	6% and 6% hard seed
PI-325374-72	24% and 76% hard seed		
PI-325374-73	24% and 64% hard seed	<u>Lotus creticus</u>	
PI-325375-70	24% and 36% hard seed	PI-311429-63	44% and 54% hard seed
PI-325376-70	40% and 32% hard seed	PI-330676-67	68% and 32% hard seed
PI-325376-71	47% and 39% hard seed	PI-31142--64	52% and 4% hard seed
PI-325377-70	32% and 56% hard seed		
<u>Lotus conimbricensis</u>		<u>Lotus cytisoides</u>	
PI-238344-58	8% and 28% hard seed	PI-283626-61	52% and 32% hard seed
PI-238344-62	32% and 20% hard seed		
PI-283616-63	8% and 90% hard seed	<u>Lotus decumbens</u>	
PI-308033-66	80	PI-311427-63	48% and 17% hard seed
PI-311426-63	24% and 60% hard seed		
<u>Lotus conjugatus</u>		<u>Lotus edulis</u>	
PI-283617-61	68% and 8% hard seed	PI-244281-63	28% and 72% hard seed
PI-283617-63	44% and 56% hard seed	PI-283627-63	60% and 40% hard seed
PI-283617-71	42% and 56% hard seed	PI-368895-71	44% and 24% hard seed
PI-308059-67	24% and 60% hard seed	PI-368896-71	80
		PI-368896-74	96
		PI-368897-71	80
		PI-368897-74	100
		PI-368898-71	76% and 20% hard seed
		PI-368898-74	94
<u>Lotus corniculatus</u>		<u>Lotus frondosus</u>	
PI-165799-68	10% and 80% hard seed	PI-310412-67	36% and 48% hard seed
PI-196539-69	28% and 56% hard seed	PI-314091-65	8% and 92% hard seed
PI-246730-70	52% and 16% hard seed	PI-316272-67	70% and 24% hard seed
PI-246734-68	48% and 32% hard seed	PI-316272-68	14% and 82% hard seed
PI-246738-69	80		
PI-260011-66 & 67	88		
PI-260012-67	64		
PI-260013-67	60		
PI-283624-75	12% and 89% hard seed	<u>Lotus glinoides</u>	
PI-285279-65	60% and 28% hard seed	PI-246736-52	24% and 8% hard seed
PI-285281-64	56% and 20% hard seed	PI-246736-68	92
PI-285282-65	48% and 36% hard seed		
PI-285283-65	60% and 40% hard seed	<u>Lotus grandiflorus</u>	
PI-286468-65	48% and 16% hard seed	PI-368899-71	16
PI-286469-65	12% and 72% hard seed		
PI-290375-69	52% and 20% hard seed	<u>Lotus hispidus</u>	
PI-300014-67	64	PI-258397-60	24% and 64% hard seed
PI-300015-68	52% and 16% hard seed	PI-263242-58	12% and 6% hard seed
PI-300015-69	28% and 58% hard seed	PI-283615-63	30% and 70% hard seed
PI-300015-70	10% and 84% hard seed	PI-308036-66	44% and 56% hard seed
PI-305508-67	84		
PI-315450-67	54% and 32% hard seed		
PI-315452-68	30% and 70% hard seed		
PI-315452-69	46% and 52% hard seed		
PI-315455-70	36% and 52% hard seed		
PI-316268-68	84		
PI-316268-69	80		

<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>	<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>
<u>Lotus moroccanus</u>		<u>Lotus tenuis</u>	
PI-283628-68	66% and 10% hard seed	PI-229569-60	46% and 18% hard seed
PI-283629-63	36% and 48% hard seed	PI-238337-60	28
<u>Lotus mearnsii</u>		PI-246737-53	0% and 4% hard seed
PI-284761-65	76% and 24% hard seed	PI-283631-66	0% and 100% hard seed
PI-284761-66	60% and 40% hard seed	PI-283632-67	56% and 16% hard seed
<u>Lotus ornithopodioides</u>		PI-292409-64	60% and 20% hard seed
PI-186962-68	66% and 34% hard seed	PI-316270-67	76% and 12% hard seed
PI-258398-60	0% and 92% hard seed	PI-316270-68	32% and 32% hard seed
PI-269853-65	40% and 44% hard seed	PI-316270-69	68% and 24% hard seed
PI-308038-66	54% and 46% hard seed	PI-316271-67	52% and 20% hard seed
PI-310413-66	74% and 26% hard seed	PI-316275-67	64% and 36% hard seed
PI-368900-71	56% and 44% hard seed	PI-344045-70	32% and 48% hard seed
PI-368901-71	56% and 44% hard seed	PI-368909-74	84
PI-368902-71	84		
PI-368903-71	60% and 32% hard seed	<u>Lotus weilleri</u>	
<u>Lotus palustris</u>		PI-186327-57	24% and 28% hard seed
PI-284674-61	80	PI-368910-71	56% and 32% hard seed
PI-292408-64	56% and 12% hard seed	<u>Lupinus albifrons var. douglassi</u>	
<u>Lotus parviflorus</u>		PI-308042-66	95
PI-308039-67	68% and 8% hard seed	<u>Lupinus albus</u>	
<u>Lotus peduncalatus</u>		T-06959-71	100
PI-48636-73	66% and 18% hard seed	PI-289160-67	80
PI-308037-69	44% and 36% hard seed	PI-316276-65	80
PI-316273-69	40% and 48% hard seed	PI-316276-67	100
PI-376219-71	80	PI-316276-71	100
PI-407472-65	16% and 82% hard seed	PI-316278-67	95
PI-407473-77	72% and 4% hard seed	PI-316279-67	92
<u>Lotus peregrinus</u>		PI-337089-68	100
PI-238335-58	4% and 96% hard seed	PI-338645-75	100
PI-238335-70	68% and 28% hard seed	PI-368911-75	80
PI-368904-71	76% and 16% hard seed	PI-368912-75	80
PI-368904-74	80	PI-368913-75	100
PI-368905-71	76% and 24% hard seed	PI-368914-75	100
PI-368905-74	44% and 52% hard seed	PI-368915-75	76
<u>Lotus purshianus</u>		<u>Lupinus angustifolius</u>	
PI-186326-62	72% and 20% hard seed	PI-280627-61	90
PI-338644-68	8% and 60% hard seed	PI-280627-63	84
<u>Lotus subpinnatus</u>		PI-283638-67	80
PI-368906-71	36	PI-289163-67	95
PI-368906-74	28% and 12% hard seed	PI-289164-66	100
PI-368907-71	80	PI-289164-67	90
PI-368908-71	72	PI-316280-67	90
<u>Lotus tenuis</u>		PI-316282-65	80
PI-229569-59	28% and 26% hard seed	PI-316281-67	88
		<u>Lupinus arboreus</u>	
		PI-393932-75	40% and 40% hard seed
		<u>Lupinus aridus</u>	
		PI-308041-66	90

<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>	<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>
<u>Lupinus elegans</u>		<u>Lychnis chalcedonica</u>	
BN-16302-59	10% and 20% hard seed	BN-22627-72	85
		BN-22627-75	100
<u>Lupinus hartwegii</u>		<u>Medicago aculeata</u>	
PI-289165-75	60	PI-287891-63	52% and 8% hard seed
<u>Lupinus hirsutus</u>		<u>Medicago arabica</u>	
PI-289167-64	60% and 4% hard seed	PI-227372-57	16% and 28% hard seed
PI-338647-70	100	PI-283639-61	52% and 4% hard seed
<u>Lupinus littoralis</u>		PI-283639-63	64% and 32% hard seed
BN-5397-48	20% and 16% hard seed	PI-368925-71	64% and 32% hard seed
<u>Lupinus luteus</u>		<u>Medicago arborea</u>	
PI-181588-48	0% and 40% hard seed	PI-368848-71	40% and 44% hard seed
PI-289171-66	100	<u>Medicago aschersoniana</u>	
PI-289173-70	100	PI-199972-68	0% and 96% hard seed
PI-303051-63	100	<u>Medicago blancheana</u>	
PI-305501-64	80	PI-368926-73	48% and 4% hard seed
PI-305502-64	90	<u>Medicago ciliaris</u>	
PI-305503-64	80	PI-198959-66	40% and 50% hard seed
PI-316283-67	96	PI-292415-64	30% and 64% hard seed
PI-316284-67 #1	90	PI-292416-64	54% and 40% hard seed
PI-316284-67 #2	96	PI-368928-71	56% and 12% hard seed
PI-316285-67	96	<u>Medicago coerulea</u>	
PI-316286-67	96	PI-28-640-64	8% and 60% hard seed
PI-430549-79	90	PI-283640-65	28% and 64% hard seed
<u>Lupinus nanus</u>		<u>Medicago falcata</u>	
PI-308051-67	84	PI-231731-59	72
<u>Lupinus ornatus</u>		<u>Medicago hemicycla</u>	
PI-308052-66	80	PI-315716-59	16% and 4% hard seed
<u>Lupinus palaestinus</u>		<u>Medicago intertexta</u>	
PI-280629-63	20% and 70% hard seed	PI-220247-64	4% and 96% hard seed
<u>Lupinus pilosus</u>		PI-308058-66	40% and 52% hard seed
PI-166960-59	50% and 30% hard seed	<u>Medicago laciniata</u>	
PI-292414-65	100	PI-244284-59	20
<u>Lupinus reticulatus</u>		<u>Medicago littoralis</u>	
PI-280628-61	60% and 40% hard seed	PI-226647-65	90
PI-280628-63	28% and 72% hard seed	PI-255381-59	20% and 80% hard seed
PI-280628-66	80	PI-316291-65	80
<u>Lupinus varius</u>		PI-316291-67	40% and 52% hard seed
PI-197574-60	0% and 32% hard seed		
PI-197574-69	80		
<u>Lupinus species</u>			
PI-23230-74	80% and 20% hard seed		

Name, PI Number, and Seed Year	Percent Germination	Name, PI Number, and Seed Year	Percent Germination
<u>Medicago lupulina</u>		<u>Medicago orbicularis</u>	
PI-189128-49	4	PI-311432-64	20% and 50% hard seed
PI-189128-62	100	PI-311433-64	15% and 82% hard seed
PI-197743-50	0% and 2% hard seed	PI-311435-64	6% and 83% hard seed
PI-197743-62	100	PI-311436-63	22% and 60% hard seed
PI-263243-62	40% and 44% hard seed	PI-311437-63	7% and 82% hard seed
PI-289310-66	100	PI-311438-64	46% and 38% hard seed
PI-302923-63	70% and 10% hard seed	PI-311439-63	14% and 80% hard seed
PI-302924-63	30% and 4% hard seed	PI-311440-63	7% and 83% hard seed
PI-308059-78	32% and 56% hard seed	PI-311441-64	4% and 82% hard seed
PI-311430-63	82% and 12% hard seed	PI-311442-64	19% and 79% hard seed
PI-311431-64	30% and 10% hard seed	PI-311443-64	13% and 62% hard seed
PI-383697-76	32% and 68% hard seed	PI-311444-64	13% and 84% hard seed
<u>Medicago minima</u>		PI-311445-64	8% and 84% hard seed
PI-227032-65	56% and 36% hard seed	PI-311446-64	8% and 86% hard seed
PI-255382-61	20% and 80% hard seed	PI-314540-67	80% and 8% hard seed
PI-287890-63	34% and 51% hard seed	PI-346008-71	28
PI-292418-64	52% and 6% hard seed	PI-368929-71	44% and 16% hard seed
<u>Medicago murex</u>		PI-368930-71	20% and 52% hard seed
PI-227025-65	94% and 4% hard seed	PI-368931-71	44% and 24% hard seed
PI-253448-61	84	PI-368932-71	16% and 20% hard seed
PI-290377-64	80% and 14% hard seed	PI-368933-71	24% and 4% hard seed
<u>Medicago muricata</u>		PI-383700-73	80
PI-244282-57	12	PI-383700-76	30% and 70% hard seed
<u>Medicago noeana</u>		<u>Medicago polymorpha</u>	
PI-308061-66	30% and 70% hard seed	PI-163369-66	20% and 80% hard seed
<u>Medicago obscura</u>		<u>Medicago polymorpha</u> var. <u>vulgaris</u>	
T-6692-60	1	PI-226469-65	0% and 92% hard seed
<u>Medicago orbicularis</u>		PI-229766-65	68% and 32% hard seed
PI-197349-62	50% and 50% hard seed	PI-244312-60	24
PI-233248-58	16% and 24% hard seed	PI-244314-52	20% and 12% hard seed
PI--27028-61	16% and 16% hard seed	PI-246740-60	20
PI-227029-57	48% and 12% hard seed	PI-287878-62	26% and 66% hard seed
PI-227029-61	20% and 8% hard seed	PI-287879-62	32% and 40% hard seed
PI-227030-65	20% and 60% hard seed	PI-287880-63	75% and 19% hard seed
PI-244316-57	32% and 8% hard seed	PI-287881-63	42% and 53% hard seed
PI-249829-62	16% and 20% hard seed	PI-287882-64	26% and 71% hard seed
PI-283641-66	40% and 56% hard seed	PI-292424-66	20% and 76% hard seed
PI-283643-66	18% and 80% hard seed	PI-292426-66	24% and 76% hard seed
PI-283644-66	0% and 100% hard seed	PI-292429-66	52% and 36% hard seed
PI-283645-66	0% and 100% hard seed	<u>Medicago polymorpha</u> var. <u>vulgaris</u> f. <u>tuberculata</u>	
PI-283646-66	16% and 52% hard seed	PI-186329-66	32% and 68% hard seed
PI-283647-66	20% and 72% hard seed	<u>Medicago rigidula</u>	
PI-287870-63	11% and 85% hard seed	PI-233252-48	8
PI-287874-63	14% and 72% hard seed	PI-290378-64	48% and 48% hard seed
PI-287876-63	15% and 72% hard seed	PI-308055-66	56% and 36% hard seed
PI-289311-64	62% and 26% hard seed	PI-368960-71	72% and 28% hard seed
PI-292419-65	16% and 78% hard seed	<u>Medicago rotata</u>	
PI-292420-65	18% and 74% hard seed	PI-292430-64	24% and 76% hard seed
PI-292421-65	18% and 76% hard seed	PI-202431-64	12% and 88% hard seed
PI-292422-65 #1	72% and 24% hard seed	PI-368961-71	40% and 32% hard seed
PI-292422-65 #2	16% and 72% hard seed		

<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>	<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>
<u>Medicago rugosa</u>		<u>Medicago scutellata</u>	
PI-368962-71	48% and 16% hard seed	PI-255383-61	16% and 28% hard seed
<u>Medicago sativa</u>		PI-255383-62	16
PI-172188-48	12	PI-283659-63	4% and 72% hard seed
PI-172189-48	22	PI-284122-65	0% and 90% hard seed
PI-172189-60	76% and 16% hard seed	PI-284122-65	0% and 50% hard seed
PI-172190-48	20	PI-290379-65	8% and 24% hard seed
PI-172190-60	44% and 4% hard seed	PI-292432-65	0% and 75% hard seed
PI-173728-55	12	PI-292433-65	0% and 100% hard seed
PI-183653-48	16	PI-368963-71	60% and 15% hard seed
PI-184803-48	0	PI-368966-71	40% and 10% hard seed
PI-185481-49	0% and 4% hard seed	PI-368967-71	40% and 10% hard seed
PI-198962-51	8% and 8% hard seed		
PI-198963-51	12% and 4% hard seed		
PI-244317-57	76% and 12% hard seed	<u>Medicago solierolii</u>	
PI-246742-60	56% and 8% hard seed	PI-258399-69	10% and 90% hard seed
PI-196235-55	16	PI-368969-71	40% and 10% hard seed
PI-206572-58	32% and 8% hard seed		
PI-207495-55	20	<u>Medicago tianschanica</u>	
PI-212104-55	28	PI-283660-69	94
PI-212798-55	0		
PI-222735-55	48% and 8% hard seed	<u>Medicago tornata</u>	
PI-223387-55	16	PI-197346-61	60% and 10% hard seed
PI-268408-60	72	PI-197350-61	90
PI-268408-62	72	PI-197860-68	40% and 60% hard seed
PI-269168-61	44% and 29% hard seed	PI-308062-66	60% and 40% hard seed
PI-289661-62	62% and 36% hard seed	PI-368970-71	88
PI-289662-62	36% and 60% hard seed		
PI-314384-65	50	<u>Medicago tornata</u> var. <u>negulosa</u>	
PI-369353-64	18% and 46% hard seed	PI-368971-71	72
T-07007-48	80		
T-07008-49	62	<u>Medicago tornata</u> var. <u>shepardii</u>	
T-07009-49	41	PI-368972-71	12% and 4% hard seed
T-07009-50	32		
T-07010-50	8	<u>Medicago tribuloides</u>	
T-07011-50	24	BN-16303-59	30
T-07012-50	20	PI-283661-69	10% and 8% hard seed
T-07014-57	40	PI-283662-61	68
T-07016-59	31	PI-284123-64	60% and 36% hard seed
T-07017-62	20	PI-287888-62	20% and 4% hard seed
T-07018-62	56		
T-07020-68	64% and 2% hard seed	<u>Melilotus alba</u>	
T-07021-71	60% and 16% hard seed	BN-19820-70	46% and 6% hard seed
BN-7645-56	48% and 2% hard seed	BN-5872-48	0% and 2% hard seed
T-07019-62	96	BN-6986-68	76% and 12% hard seed
BN-22929-72	42% and 40% hard seed	BN-8390-51	16
<u>Medicago sativa X falcata</u>		BN-9025-68	68% and 16% hard seed
BN-8352-56	24% and 8% hard seed	T-07023-78	26% and 66% hard seed
BN-8464-56	8	T-07024-65	16
BN-8351-55	34% and 10% hard seed	T-07024-78	24% and 50% hard seed
BN-8352-55	32% and 14% hard seed	T-07023-65	22
BN-16506-57	12% and 12% hard seed	PI-383707-78	36% and 52% hard seed
PI-247006-57	16% and 50% hard seed		
<u>Medicago scutellata</u>		<u>Melilotus alba annua</u>	
PI-189569-49	34	BN-7055-50	20% and 13% hard seed
PI-189570-49	6		
PI-189571-49	30% and 15% hard seed		
PI-197356-62	50% and 50% hard seed		

<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>	<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>
<u>Melilotus dentata X alba</u>		<u>Pinus aristata</u>	
BN-12421-61	72% and 7% hard seed	BN-21629-70	0
<u>Melilotus officinalis</u>		<u>Pinus elliotti densa</u>	
BN-5873-48	7	BN-10739-59	24
BN-5873-69	56% and 4% hard seed	<u>Pinus griffithi</u>	
BN-6987-50	4	1968 seed	0
BN-7023-50	0% and 86% hard seed	1969 seed	2
<u>Melilotus viridula</u>		<u>Pinus nigra</u>	
BN-4078-58	26% and 4% hard seed	1970 seed	80
BN-4078-68	44% and 32% hard seed	<u>Pinus sylvestris</u>	
<u>Nepeta mussina</u>		1970 seed	82
BN-22578-72	32% and 28% hard seed	<u>Pinus taeda</u>	
<u>Oenothera biennis</u>		1969 seed	26
T-02069-74	4	<u>Pinus thunbergii</u>	
<u>Oenothera lamarkiana</u>		1970 seed	32
T-02070-72	78	<u>Pinus virginiana</u>	
BN-22628-73	84	1969 seed	82
<u>Onobrychis vicifolia</u>		<u>Pisum satinum</u>	
BN-13551-62	0% and 92% hard seed	List #62	100
BN-22961-73	80	<u>Polygonum pensylvanicum</u>	
<u>Onobrychis species</u>		BN-7289-57	0% and 58% hard seed
BN-15448-63	0	<u>Pueraria thunbergiana</u>	
<u>Penstemon digitalis</u>		BN-22974-73	50
BN-22559-74	0	<u>Ratibida pinnata</u>	
BN-22599-77	14	BN-22594-72	4
<u>Phaseolus lathyroides</u>		BN-22594-74	64
BN-4924-48	30	BN-22594-75	80
BN-14715-62	40	<u>Rhynchosia minima</u>	
BN-14716-62	68	BN-19052-68	40% and 40% hard seed
BN-17089-65	44% and 56% hard seed	<u>Rhynchosia tomentosa</u>	
PI-153704-47	18% and 8% hard seed	BN-8467-56	60
PI-276182-60	36	<u>Robinia fertilis</u>	
PI-276182-62	82	T-02669-68 #1	43% and 4% hard seed
PI-276182-64	35% and 61% hard seed	T-02669-71 #1	68% and 8% hard seed
PI-276183-63	80	T-02669-68 #2	52% and 20% hard seed
PI-276185-62	88	T-02669-70	70% and 10% hard seed
PI-280130-61	76% and 16% hard seed		
PI-280130-64	18% and 72% hard seed		
PI-315737-48	24% and 4% hard seed		
PI-316464-65	20		
PI-322591-66	80		
PI-322592-66	80		
<u>Phaseolus lunatus</u>			
PI-186340-54	10		

<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>	<u>Name, PI Number and Seed Year</u>	<u>Percent Germination</u>
<u><i>Robinia fertilis</i></u>		<u><i>Salvia verticillata</i></u>	
T-02669-71 #2	64% and 26% hard seed	PI-380900-78	20% and 80% hard seed
<u><i>Robinia neomexicana</i></u>		<u><i>Sesbania acuteata</i></u>	
BN-2000-38	0% and 44% hard seed	BN-14717-62	32% and 62% hard seed
<u><i>Robinia pseudoacacia</i></u>		<u><i>Sesbania emerus</i></u>	
BN-2001-37	4% and 4% hard seed	BN-4935-66	20% and 80% hard seed
BN-2002-37	0% and 20% hard seed		
BN-2870-41	4% and 14% hard seed		
BN-6747-50	22% and 68% hard seed		
BN-6842-50	0		
BN-7080-50	10% and 4% hard seed	BN-22596-71	4
BN-15914-58	52% and 25% hard seed	BN-22596-76	10
BN-15914-60	18% and 54% hard seed		
BN-15916-58	53% and 22% hard seed		
BN-18272-67	8% and 76% hard seed		
<u><i>Robinia slaninii</i></u>		<u><i>Stizolobium deerlingianum</i></u>	
BN-2003-39	32% and 44% hard seed	BN-6687-64	50
<u><i>Robinia viscosa</i></u>			
BN-10889-59	32% and 68% hard seed	<u><i>Syringa amurensis japonica</i></u>	
		1967 seed	0
<u><i>Rudbeckia hirta</i></u>		<u><i>Syringa villosa</i></u>	
1970 seed	80	1966 seed	0
1978 seed	84		
BN-17973-66	84		
BN-17973-68	100	<u><i>Syringa vulgaris</i></u>	
BN-17973-75	100	1973 seed	4
BN-17973-76	100		
<u><i>Rudbeckia nitida</i></u>		<u><i>Tagetes erecta</i></u>	
BN-22739-75	0	PI-350689-71	60
<u><i>Rudbeckia purpurea</i></u>		PI-350690-71	38
BN-22603-72 #1	56	PI-350691-71	48
BN-22603-72 #2	10		
<u><i>Rudbeckia sullinantii</i></u>		<u><i>Tagetes lemoni</i></u>	
BN-22748-74	80	PI-390235-64	16
BN-22748-75	28		
BN-22748-76	84	<u><i>Tagetes lucida</i></u>	
<u><i>Salvia hispanica</i></u>		PI-390236-74	36
BN-19653-70	100		
<u><i>Salvia pitcheri</i></u>		<u><i>Tagetes minuta</i></u>	
BN-22595-72	42	PI-350694-71	80
BN-22595-73	68		
BN-22595-74	70	<u><i>Tagetes patula</i></u>	
BN-22595-75	82	PI-350695-71	76
BN-22595-76	81	PI-350697-71	52
		PI-350698-71	70
		PI-372360-73	70
		<u><i>Teramnus labialis</i></u>	
		T-07100-62	40% and 50% hard seed
		PI-406170-78	28% and 56% hard seed

<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>	<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>
<u><i>Teramnus repens</i></u>		<u><i>Trifolium hybridum</i></u>	
PI-406171-78	4% and 96% hard seed	BN-10952-70	16% and 60% hard seed
		BN-20918-75	60% and 32% hard seed
<u><i>Tetragonolobus purpurens</i></u>		<u><i>Trifolium incarnatum</i></u>	
BN-20902-74	92	BN-9847-58	1
		BN-12422-61	73
<u><i>Trifolium alexandrium</i></u>		BN-20919-74	16% and 84% hard seed
BN-11687-60	40		
<u><i>Trifolium ambiguum</i></u>		<u><i>Trifolium isthmocarpum</i></u>	
T-02116-58	6% and 6% hard seed	BN-10878-55	20% and 48% hard seed
<u><i>Trifolium angustifolium</i></u>		<u><i>Trifolium lagopus</i></u>	
BN-11354-62	4	BN-10926-59	8% and 28% hard seed
BN-20905-64	40% and 40% hard seed	BN-10926-69	30% and 62% hard seed
<u><i>Trifolium arvense</i></u>		<u><i>Trifolium lappaceum</i></u>	
BN-20906-74	6% and 92% hard seed	BN-20920-74	1% and 62% hard seed
BN-6658-57	26% and 18% hard seed		
		<u><i>Trifolium leucanthum</i></u>	
<u><i>Trifolium balanse</i></u>		BN-20921-74	28% and 64% hard seed
BN-10945-70	20% and 32% hard seed		
		<u><i>Trifolium ligusticum</i></u>	
<u><i>Trifolium cherleri</i></u>		BN-20922-74	40% and 60% hard seed
BN-20910-76	18% and 72% hard seed		
		<u><i>Trifolium nigrescens</i></u>	
<u><i>Trifolium clypeatum</i></u>		BN-10923-59	12% and 88% hard seed
BN-20911-74	2% and 94% hard seed	BN-11402-65	20% and 68% hard seed
		BN-14721-62	12% and 43% hard seed
<u><i>Trifolium diffusum</i></u>		<u><i>Trifolium obscurum</i></u>	
BN-9539-66	28% and 58% hard seed	BN-20928-74	28% and 68% hard seed
BN-16306-60	4		
		<u><i>Trifolium obscurum</i></u> ssp. <u><i>aequidentatum</i></u>	
<u><i>Trifolium echinatum</i></u>		BN-20929-74	24% and 70% hard seed
BN-20913-74	4% and 72% hard seed		
		<u><i>Trifolium occidentale</i></u>	
<u><i>Trifolium fragiferum</i></u>		BN-20930-74	60% and 40% hard seed
BN-4349-69	48% and 44% hard seed	BN-20964-67	24% and 8% hard seed
BN-5026-66	4% and 92% hard seed	BN-20964-74	52% and 48% hard seed
T-04900-69	62% and 32% hard seed		
		<u><i>Trifolium pratense</i></u>	
<u><i>Trifolium glomeratum</i></u>		BN-6988-50	12
BN-20915-74	0% and 100% hard seed	BN-9154-54	18% and 2% hard seed
		BN-9154-57	18% and 8% hard seed
		BN-9154-58	26
<u><i>Trifolium hirtum</i></u>		BN-9155-57	4% and 4% hard seed
BN-9146-56	2% and 24% hard seed	BN-9212-57	68% and 5% hard seed
BN-1946-73	42% and 16% hard seed	BN-19648-69	80
BN-9873-58	4% and 46% hard seed	1960 seed	20
BN-17329-60	32% and 28% hard seed		
BN-20917-74	32% and 36% hard seed		

<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>	<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>
<u><i>Trifolium purpureum</i></u>		<u><i>Vicia benghalensis</i></u>	
BN-11568-61	40% and 12% hard seed	BN-9372-61	96
<u><i>Trifolium repens</i></u>		BN-9372-75	100
BN-5428-69	70% and 28% hard seed	BN-13607-66	28
BN-7056-50	16% and 8% hard seed	BN-17960-66	90
BN-9030-56	12% and 14% hard seed	BN-20962-74	92
BN-19646-67	84		
BN-14613-62	39% and 44% hard seed	<u><i>Vicia biennis</i></u>	
1961 seed	69% and 11% hard seed	BN-20958-74	52% and 48% hard seed
1962 seed	78% and 12% hard seed	<u><i>Vicia cracca</i></u>	
<u><i>Trifolium repens latum</i></u>		T-07109-67	50% and 30% hard seed
BN-6989-50	6% and 11% hard seed	<u><i>Vicia dasycarpa</i></u>	
BN-6989-51	13% and 31% hard seed	BN-16316-64	96
BN-6989-57	20% and 18% hard seed	BN-19253-70	86
<u><i>Trifolium resupinatum</i></u>		BN-19254-70	72% and 20% hard seed
BN-10936-60	8% and 82% hard seed	<u><i>Vicia disperma</i></u>	
<u><i>Trifolium species</i></u>		BN-20960-74	52% and 48% hard seed
BN-10941-60	36% and 56% hard seed	<u><i>Vicia eriocarpa</i></u>	
<u><i>Trigonella polycerata</i></u>		BN-19190-70	86
BN-8654-65	16% and 68% hard seed	<u><i>Vicia ervillia</i></u>	
BN-20957-74	72% and 4% hard seed	BN-17720-67	100
<u><i>Vernonia missurica</i></u>		<u><i>Vicia exigua</i></u>	
BN-22647-73	0	BN-21862-72	32% and 48% hard seed
<u><i>Vernonia noveboracensis</i></u>		<u><i>Vicia grandiflora</i></u>	
BN-23265-73	0	BN-4514-62	60% and 20% hard seed
<u><i>Veronica incana</i></u>		BN-4514-75	68% and 8% hard seed
BN-10888-62	46	BN-8662-56	4
<u><i>Veronica teucrium</i></u>		BN-13535-57	0
BN-19467-73	88	BN-13535-62	80
<u><i>Vicia americana</i></u>		BN-13535-70	80
BN-23263-73	76% and 16% hard seed	BN-13535-75	100
<u><i>Vicia amurensis</i></u>		BN-20963-74	80
BN-18953-71	0% and 100% hard seed	<u><i>Vicia grandiflora</i></u> var. <u><i>kitaibeliana</i></u>	
<u><i>Vicia angustifolia</i></u>		BN-20964-74	80
BN-4159-61	0	<u><i>Vicia hirsuta</i></u>	
BN-19685-68	5% and 40% hard seed	BN-6078-49	0
<u><i>Vicia articulata</i></u>		BN-7051-40	0
BN-20970-74	64% and 36% hard seed	BN-20965-74	38% and 62% hard seed
		<u><i>Vicia hybrida</i></u>	
		BN-19650-69	92
		BN-19650-70	100
		BN-19650-71	84

<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>	<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>
<u>Vicia hybrida</u>		<u>Vicia noeana</u>	
BN-20966-74	30% and 70% hard seed	BN-19338-71	35% and 65% hard seed
		BN-19337-71	80
<u>Vicia incisaeformis</u>		<u>Vicia pannomica</u>	
BN-19193-70	28% and 72% hard seed	BN-22956-68	92
<u>Vicia lathroides</u>		<u>Vicia peregrina</u>	
BN-20969-74	90	BN-19341-71	8% and 92% hard seed
BN-16458-67	28% and 72% hard seed	BN-20976-74	84
<u>Vicia leavenworthii</u>		<u>Vicia pilosa</u>	
BN-4001-47	0	BN-19199-70	52% and 48% hard seed
BN-4001-48	4		
<u>Vicia litinovii</u>		<u>Vicia pisiformis</u>	
BN-18960-69	60% and 8% hard seed	T-07111-67	40% and 25% hard seed
		T-07111-73	10% and 80% hard seed
		T-07111-74	15% and 75% hard seed
<u>Vicia lutea</u>		<u>Vicia sativa</u>	
BN-16308-62	58% and 4% hard seed	BN-14522-62	84
BN-16308-66	16	BN-14524-62	72
BN-18576-66	44	BN-14524-66	84
<u>Vicia lutea</u> ssp. <u>laevigata</u>		BN-18081-66	88
BN-20971-74	60% and 40% hard seed	BN-19342-71	80
		BN-19343-71	74% and 26% hard seed
<u>Vicia macrocarpa</u>		<u>Vicia sativa nigra</u>	
BN-19194-70	90	BN-20981-74	100
BN-20980-74	90		
<u>Vicia meyeri</u>		<u>Vicia tenuifolia</u>	
BN-19196-70	40% and 50% hard seed	BN-15481-64	46% and 12% hard seed
<u>Vicia minutiflora</u>		<u>Vicia tetrasperma</u>	
BN-20421-72	16% and 24% hard seed	BN-4401-62	60% and 12% hard seed
BN-20425-72	38% and 42% hard seed		
<u>Vicia monantha</u>		<u>Vicia unijuga</u>	
BN-20972-74	84	T-07117-67	0
<u>Vicia monantha</u> ssp. <u>triflora</u>		<u>Vicia variegata</u>	
BN-20973-74	16% and 56% hard seed	BN-18966-72	8% and 92% hard seed
<u>Vicia narbonensis</u> var. <u>serratifolica</u>		<u>Vicia villosa</u>	
BN-20974-74	55% and 40% hard seed	BN-19331-70	80
		BN-17699-66	53
		BN-19686-69	62
		BN-20986-74	94
		BN-21784-75	80
<u>Vicia neglecta</u>		<u>Vicia villosa</u> f. <u>albiflora</u>	
BN-19197-70	96	BN-19673-70	40

<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>	<u>Name, PI Number, and Seed Year</u>	<u>Percent Germination</u>
<u>Vicia villosa</u> var. <u>eriocarpa</u>		<u>Vigna unguiculata</u> ssp. <u>cylindrica</u>	
BN-20984-74	92	PI-286438-62	100
<u>Vicia villosa</u> var. <u>varia</u>		PI-286438-63	90
BN-20985-74	54% and 40% hard seed	PI-263253-58	34% and 6% hard seed
<u>Vicia</u> species		PI-180494-62	100
BN-19687-69	28% and 25% hard seed		
BN-19687-71	16% and 84% hard seed		
BN-21865-72	24% and 52% hard seed		
BN-21878-72	84		
BN-21898-74	8% and 92% hard seed		
BN-21899-72	92		
<u>Vigna aconitifolia</u>			
BN-6673-49	54	BN-5683-67&68	95
PI-372355-71	88	PI-186359-48	0
<u>Vigna decipiens</u>		PI-186359-50	0
PI-365091-70	20% and 48% hard seed	PI-186360-58	75
<u>Vigna heterophylla</u>		PI-291139-62	70
PI-199374	36% and 36% hard seed	PI-291139-65	60
<u>Vigna luteola</u>		PI-291140-62	90
PI-175009-50	42% and 2% hard seed	PI-291140-65	70
PI-280131-61	20% and 72% hard seed	PI-291141-62	100
PI-280131-63	44% and 52% hard seed	PI-291142-62	90
PI-322343-73	84	PI-291143-62	90
PI-355920-69	84	PI-315749-48	0
PI-355920-74	72% and 24% hard seed	PI-315750-50	5
PI-365092-70	44% and 52% hard seed		
PI-365093-70	64% and 36% hard seed		
<u>Vigna radiata</u>		<u>Vigna</u> species	
BN-9773-58	85	BN-10834-65	40
BN-16169-62	90	PI-199375-78	16% and 72% hard seed
<u>Vigna repens</u>			
BN-14675-62	74% and 12% hard seed		
BN-14722-62	64% and 2% hard seed		
BN-14723-62	38% and 22% hard seed		
BN-14724-62	64% and 2% hard seed		
BN-14725-62	80% and 4% hard seed		
BN-14725-65	56% and 2% hard seed		
<u>Vigna unguiculata</u>			
PI-372356-71	80		
<u>Vigna unguiculata</u> ssp. <u>cylindrica</u>			
PI-200244-56	0		
PI-250238-62	40		

Accessions Planted - 1979

Two-hundred-ninety-three different accessions were planted on the center during 1979. The plantings were made to:

1. Increase small amounts of available seed
2. Check identity
3. Reproduce aging seed in order to maintain viable seed in storage
4. Note plant performance

Grasses

<u>PI or BN Number</u>	<u>Name</u>	<u>Source</u>
229529	<u>Alopecurus arundinaceus</u>	Iran
380664	<u>Alopecurus arundinaceus</u>	Iran
T-06641	<u>Alopecurus geniculatus</u>	Denmark
T-06642	<u>Alopecurus geniculatus</u>	Denmark
380670	<u>Alopecurus pratensis</u>	Iran
380671	<u>Alopecurus pratensis</u>	Iran
380672	<u>Alopecurus pratensis</u>	Iran
380673	<u>Alopecurus pratensis</u>	Iran
383586	<u>Alopecurus pratensis</u>	Turkey
T-06643	<u>Alopecurus pratensis</u>	France
422449	<u>Ammophila arenaria</u>	Germany
T-06651	<u>Ammophila arenaria</u>	Denmark
T-06650	<u>Ammophila arenaria</u>	Norway
T-07122	<u>Ammophila arenaria x baltica</u>	Denmark
Planted for identification	<u>Brachypodium sylvaticum</u>	

<u>PI or BN Number</u>	<u>Name</u>	<u>Source</u>
383616	<u>Bromus erectus</u>	Turkey
T-06687	<u>Bromus hordeaceus</u>	Norway
T-06688	<u>Bromus hordeaceus</u>	Denmark
T-06689	<u>Bromus hordeaceus</u>	Denmark
T-06690	<u>Bromus hordeaceus</u>	Denmark
T-06691	<u>Bromus hordeaceus</u>	Denmark
T-07131	<u>Bromus ramosus</u> ssp. <u>benekeni</u>	Denmark
T-07132	<u>Bromus ramosus</u> ssp. <u>ramosus</u>	Denmark
T-07133	<u>Bromus ramosus</u> ssp. <u>ramosus</u>	Denmark
T-06692	<u>Bromus secalinsis</u>	Denmark
T-07134	<u>Bromus secalinsis</u> var. <u>velutinus</u>	Denmark
380770	<u>Bromus tomentellus</u>	Iran
380774	<u>Bromus tomentellus</u>	Iran
380775	<u>Bromus tomentellus</u>	Iran
383619	<u>Bromus tomentellus</u>	Turkey
383620	<u>Bromus tomentellus</u>	Turkey
383621	<u>Bromus tomentellus</u>	Turkey
384811	<u>Bromus tomentellus</u>	Iran
384816	<u>Bromus tomentellus</u>	Iran
384817	<u>Bromus tomentellus</u>	Iran
384818	<u>Bromus tomentellus</u>	Iran
384820	<u>Bromus tomentellus</u>	Iran
384821	<u>Bromus tomentellus</u>	Iran
384822	<u>Bromus tomentellus</u>	Iran
384828	<u>Bromus tomentellus</u>	Iran

<u>PI or BN Number</u>	<u>Name</u>	<u>Source</u>
380772	<u>Bromus tomentellus</u>	Iran
314647	<u>Bromus species</u>	USSR
286474	<u>Calamagrostis arundinacea</u>	Japan
325240	<u>Calamagrostis arundinacea</u>	USSR
345969	<u>Calamagrostis canescens</u>	Norway
T-06697	<u>Calamagrostis neglecta</u>	Norway
346967	<u>Dactylis marina</u>	Wales
346968	<u>Dactylis marina</u>	Portugal
346969	<u>Dactylis marina</u>	Wales
346970	<u>Dactylis marina</u>	Portugal
20598	<u>Dactylis marina</u>	Portugal
368881	<u>Dactylis glomerata</u>	Portugal
T-06777	<u>Deschampsia caespitosa</u>	Norway
T-07150	<u>Deschampsia caespitosa</u> ssp. <u>behringensis</u>	Canada
406167	<u>Digitaria momباسana</u>	Kenya
345978	<u>Elymus arenarius</u>	Norway
325315	<u>Elymus sibiricus</u>	USSR
326267	<u>Elymus sibiricus</u>	USSR
369236	<u>Elymus sibiricus</u>	USSR
378053	<u>Elymus species</u>	Argentina
331392	<u>Hyparrhenia anthistiriooides</u>	Ethiopia
273928	<u>Hyparrhenia hirta</u>	Ethiopia
409034	<u>Panicum maximum</u>	Brazil
300082	<u>Pennisetum clandestinum</u>	Ethiopia

<u>PI or BN Number</u>	<u>Name</u>	<u>Source</u>
409103	<u>Pennisetum clandestinum</u>	Ethiopia
410296	<u>Pennisetum clandestinum</u>	Ethiopia
410298	<u>Pennisetum clandestinum</u>	Ethiopia
410299	<u>Pennisetum clandestinum</u>	Ethiopia
410300	<u>Pennisetum clandestinum</u>	Ethiopia
410301	<u>Pennisetum clandestinum</u>	Ethiopia
410302	<u>Pennisetum clandestinum</u>	Ethiopia
410303	<u>Pennisetum clandestinum</u>	Ethiopia
410304	<u>Pennisetum clandestinum</u>	Ethiopia

Legumes and Others

T-06625	<u>Achillea millefolium</u>	Denmark
T-06626	<u>Achillea millefolium</u>	Denmark
T-06627	<u>Achillea millefolium</u>	Denmark
T-06628	<u>Achillea millefolium</u>	Denmark
T-06629	<u>Achillea millefolium</u>	Greenland
T-06630	<u>Achillea ptarmica</u>	Denmark
T-06631	<u>Achillea ptarmica</u>	Norway
383527	<u>Achillea species</u>	Turkey
383528	<u>Achillea species</u>	Turkey
	<u>Amphicarpa bracteata</u>	Dr. Oakes
T-06664	<u>Armeria maritima</u>	Norway
T-06665	<u>Armeria maritima</u>	Norway
T-06666	<u>Armeria maritima</u>	Greenland
T-07124	<u>Armeria maritima</u> ssp. <u>sibirica</u>	Greenland

<u>PI or BN Number</u>	<u>Name</u>	<u>Source</u>
T-06672	<u>Artemisia vulgaris</u>	Denmark
T-06673	<u>Artemisia</u> species	Korea
421278	<u>Asclepias tuberosa</u>	Nebraska
202149	<u>Astragalus</u> species	Argentina
383604	<u>Astragalus</u> species	Turkey
415852	<u>Atriplex canescens</u>	S. Africa
T-06680	<u>Atriplex hortensis</u>	Denmark
T-07126	<u>Atriplex hortensis</u> var. <u>rubra</u>	Denmark
T-07127	<u>Atriplex littoralis</u>	Norway
T-06681	<u>Atriplex patula</u>	Denmark
T-06682	<u>Atriplex patula</u>	Denmark
T-06683	<u>Atriplex patula</u>	Denmark
T-07128	<u>Atriplex patula</u> var. <u>erecta</u>	Denmark
T-07129	<u>Atriplex sabulosa</u>	Norway
368852	<u>Atriplex semibaccata</u>	Chile
368853	<u>Atriplex semibaccata</u>	Chile
330671	<u>Atriplex</u> species	Venezuela
365646	<u>Biserrula pelecinus</u>	Spain
T-06699	<u>Calendula officinalis</u>	Spain
T-06700	<u>Calopogonium caeruleum</u>	Malasia
T-07137	<u>Campanula alliariifolia</u>	Belgium
T-06701	<u>Campanula rotundifolia</u>	Denmark
T-06702	<u>Campanula rotundifolia</u>	Denmark
T-06703	<u>Campanula rotundifolia</u>	Denmark

<u>PI or BN Number</u>	<u>Name</u>	<u>Source</u>
T-06704	<u>Campanula rotundifolia</u>	Denmark
T-06705	<u>Campanula rotundifolia</u>	Denmark
T-06706	<u>Campanula rotundifolia</u>	Denmark
T-06707	<u>Campanula rotundifolia</u>	Norway
T-06708	<u>Campanula rotundifolia</u>	Belgium
T-06709	<u>Campanula species</u>	Commercial
T-06711	<u>Caragana arborescens</u>	Czechoslovakia
422453	<u>Caragana frutex</u>	Germany
310390	<u>Caragana species</u>	USSR
T-03681	<u>Ceanothus fendleri</u>	Arizona
T-06720	<u>Centaurea cyanus</u>	Denmark
T-06721	<u>Centaurea cyanus</u>	Denmark
400293	<u>Centrosema pubescens</u>	Rhodesia
400294	<u>Centrosema pubescens</u>	Rhodesia
T-07143	<u>Cheiranthus allionii</u>	Norway
T-06724	<u>Chrysanthemum coronarium</u>	Denmark
T-06725	<u>Chrysanthemum coronarium</u>	Denmark
T-06726	<u>Chrysanthemum leucanthemum</u>	Denmark
T-06727	<u>Chrysanthemum leucanthemum</u>	Denmark
T-06728	<u>Chrysanthemum leucanthemum</u>	Denmark
T-06729	<u>Chrysanthemum segetum</u>	Denmark
T-06730	<u>Chrysanthemum segetum</u>	Denmark
T-06731	<u>Chrysanthemum segetum</u>	Denmark
T-06732	<u>Chrysanthemum species</u>	Korea
T-07144	<u>Chrysopsis villosa</u>	Norway

<u>PI or BN Number</u>	<u>Name</u>	<u>Source</u>
T-06733	<u>Cichorium intybus</u>	Denmark
T-06739	<u>Coronilla emerus</u>	Norway
T-06740	<u>Coronilla minima</u>	Norway
384840	<u>Coronilla varia</u>	Iran
T-06754	<u>Corydalis sempervirens</u>	Denmark
T-06755	<u>Corydalis sempervirens</u>	Denmark
322500	<u>Desmodium</u> species	Brazil
T-06786	<u>Desmodium</u> species	Mexico
T-06788	<u>Digitalis purpurea</u>	Denmark
T-06789	<u>Digitalis purpurea</u>	Denmark
T-07158	<u>Epilobium adenocaulon</u>	Denmark
T-07159	<u>Epilobium hornemannii</u>	Greenland
T-07160	<u>Epilobium palustre</u>	Denmark
T-07161	<u>Epilobium palustre</u>	Denmark
T-07162	<u>Epilobium palustre</u>	Denmark
T-07163	<u>Erigeron compositus</u>	Greenland
T-07164	<u>Erigeron compositus</u>	Norway
T-06810	<u>Gailardia pulchella</u>	N. Carolina
T-07166	<u>Gilia achilleifolia</u>	Denmark
T-06811	<u>Gilia capitata</u>	Denmark
364849	<u>Glycine wightii</u>	S. Africa
163453	<u>Glycine soja</u>	Georgia
T-06820	<u>Hypochoeris radicata</u>	Denmark
T-06821	<u>Hypochoeris radicata</u>	Denmark

<u>PI or BN Number</u>	<u>Name</u>	<u>Source</u>
T-06822	<u>Hypochoeris radicata</u>	Denmark
T-06823	<u>Hypochoeris radicata</u>	Denmark
383670	<u>Iris species</u>	Turkey
380883	<u>Juncus species</u>	Iran
195996	<u>Lathyrus cicera</u>	Ethiopia
345999	<u>Lathyrus japonicus</u>	Norway
T-06840	<u>Lathyrus japonicus</u> ssp. <u>maritimus</u>	France
T-06843	<u>Lathyrus maritimus</u>	Norway
T-06844	<u>Lathyrus maritimus</u>	Norway
T-06845	<u>Lathyrus maritimus</u>	Denmark
T-06846	<u>Lathyrus maritimus</u>	Denmark
T-06847	<u>Lathyrus maritimus</u>	Denmark
T-06848	<u>Lathyrus maritimus</u>	Greenland
T-06849	<u>Lathyrus maritimus</u>	Denmark
T-07172	<u>Lathyrus maritimus</u> ssp. <u>acutifolius</u>	Denmark
T-06855	<u>Lathyrus sylvestris</u>	Norway
T-06856	<u>Lathyrus sylvestris</u>	Norway
T-06920	<u>Lespedeza species</u>	Korea
341781	<u>Ligustrum species</u>	Canada
T-06927	<u>Lubelia species</u>	Commercial
T-06933	<u>Lonicera periclymenum</u>	Denmark
283637	<u>Lupinus angustifolius</u>	Australia
383692	<u>Lupinus angustifolius</u>	Australia
T-07183	<u>Lupinus arcticus</u> v. <u>prunophilus</u>	Canada

<u>PI or BN Number</u>	<u>Name</u>	<u>Source</u>
189160	<u>Lupinus luteus</u>	Holland
303052	<u>Lupinus luteus</u>	S. Africa
316288	<u>Lupinus luteus</u>	Hungary
326277	<u>Lupinus luteus</u>	USSR
326278	<u>Lupinus luteus</u>	USSR
326279	<u>Lupinus luteus</u>	USSR
338648	<u>Lupinus luteus</u>	Morocco
368920	<u>Lupinus luteus</u>	Australia
368921	<u>Lupinus luteus</u>	Hungary
316290	<u>Lupinus mutabilis</u>	Argentina
T-06970	<u>Lupinus nanus</u>	Denmark
T-06972	<u>Lupinus succulentus</u>	Denmark
T-06973	<u>Lupinus species</u>	New York
T-07974	<u>Lythrum salicaria</u>	Denmark
T-07974	<u>Lythrum salicaria</u>	Denmark
T-06978	<u>Malva moschata</u>	Belgium
T-06979	<u>Malva moschata</u>	Denmark
T-06980	<u>Malva moschata</u>	Denmark
T-06981	<u>Malva moschata</u>	Denmark
227452	<u>Medicago lupulina</u>	Iran
T-06997	<u>Medicago polymorpha</u>	France
T-06998	<u>Medicago polymorpha</u>	France
T-13272	<u>Melilotus alba</u>	Iowa
322560	<u>Melilotus alba</u>	Brazil

<u>PI or BN Number</u>	<u>Name</u>	<u>Source</u>
383705	<u>Melilotus alba</u>	Turkey
325420	<u>Melilotus alba</u> var. <u>annua</u>	USSR
289314	<u>Melilotus officinalis</u>	Hungary
325427	<u>Melilotus officinalis</u>	USSR
308068	<u>Melilotus officinalis micranthus</u>	Czechoslovakia
T-0702-	<u>Mimulus guttatus</u>	Denmark
T-07028	<u>Monarda fistulosa</u>	Norway
T-07188	<u>Nemophila maculata</u>	Denmark
T-07189	<u>Nemophila menziesii</u>	Denmark
T-07190	<u>Nemophila menziesii</u> var. <u>atomaria</u>	Denmark
T-07191	<u>Nemophila menziesii</u> var. <u>insignis</u>	Denmark
T-07029	<u>Oenothera biennis</u>	Denmark
T-07030	<u>Oenothera biennis</u>	Denmark
T-07192	<u>Oxytropis campestris</u> ssp. <u>sordida</u>	Norway
T-07031	<u>Papaver rhoeas</u>	Denmark
T-07032	<u>Papaver rhoeas</u>	Denmark
T-07033	<u>Papaver rhoeas</u>	Denmark
T-07035	<u>Penstemon alpinus</u>	Norway
T-07195	<u>Penstemon grandifloris</u>	Nebraska
T-07196	<u>Penstemon tolmiei</u>	Norway
T-07038	<u>Penstemon digitalis</u>	Pennsylvania
322580	<u>Phaseolus atropurpureus</u>	Australia

<u>PI or BN Number</u>	<u>Name</u>	<u>Source</u>
T-07046	<u>Phlox</u> species	Commercial
T-07049	<u>Plantago maritima</u>	Denmark
T07050	<u>Plantago maritima</u>	Denmark
T-07197	<u>Plantago maritima</u> ssp. <u>borealis</u>	Greenland
T-07056	<u>Potentilla recta</u>	Denmark
T-07058	<u>Psophocarpus tetragonolobus</u>	Local
T-07059	<u>Psophocarpus tetragonolobus</u>	Malasia
T-07060	<u>Psophocarpus tetragonolobus</u>	Nigeria
T-07061	<u>Psophocarpus tetragonolobus</u>	Malasia
T-07062	<u>Psophocarpus tetragonolobus</u>	Malasia
T-07063	<u>Psophocarpus tetragonolobus</u>	Malasia
T07064	<u>Psophocarpus tetragonolobus</u>	Malasia
238252	<u>Psoralea bituminosa</u>	Spain
283966	<u>Psoralea bituminosa</u>	France
T-07066	<u>Ranunculus acris</u>	Norway
T-07067	<u>Ranunculus acris</u>	Belgium
T-07202	<u>Ranunculus pygmaeus</u>	Norway
T-07069	<u>Ranunculus repens</u>	Norway
T-07068	<u>Ranunculus reptans</u>	Norway
T-07070	<u>Ranunculus sceleratus</u>	Norway
T-07203	<u>Ranunculus sulphureus</u>	Svalbard
420257	<u>Reseda lutea</u>	Iran
370208	<u>Rosa</u> species	Yugoslavia
370209	<u>Rosa</u> species	Yugoslavia
381013	<u>Rosa</u> species	Iran

<u>PI or BN Number</u>	<u>Name</u>	<u>Source</u>
383745	<u>Rosa species</u>	Turkey
T-07087	<u>Sanquisorba officinalis</u>	Norway
T-07088	<u>Saponaria officinalis</u>	Denmark
T-07089	<u>Saponaria officinalis</u>	Denmark
T-07090	<u>Sedum species</u>	Commercial
T-07210	<u>Silene acaulis</u>	Greenland
T-07091	<u>Silene armeria</u>	Denmark
372359	<u>Tagetes erecta</u>	USSR
350697	<u>Tagetes patula</u>	Netherlands
T-07098	<u>Tanacetum vulgare</u>	Norway
T-07099	<u>Tanacetum vulgare</u>	Norway
T-07101	<u>Trifolium aureum</u>	Canada
T-07102	<u>Trifolium aureum</u>	Denmark
T-07103	<u>Trifolium pilulare</u>	Denmark
233286	<u>Trifolium purpureum</u>	Israel
238370	<u>Trifolium purpureum</u>	Lebanon
238371	<u>Trifolium purpureum</u>	Cyprus
292482	<u>Trifolium purpureum</u>	Israel
292483	<u>Trifolium purpureum</u>	Israel
292484	<u>Trifolium purpureum</u>	Israel
241117	<u>Trifolium medium</u>	New Zealand
297381	<u>Trifolium medium</u>	Norway
T-07105	<u>Trifolium spumosum</u>	France
T-07104	<u>Trifolium spumosum</u>	Denmark
268349	<u>Trifolium usambarense</u>	Belgian Congo

<u>PI or BN Number</u>	<u>Name</u>	<u>Source</u>
120210	<u>Trifolium</u> species	Turkey
233284	<u>Trifolium</u> species	Israel
369145	<u>Trifolium</u> species	Australia
369146	<u>Trifolium</u> species	Australis
369147	<u>Trifolium</u> species	Australia
369149	<u>Trifolium</u> species	Turkey
308119	<u>Vicia</u> <u>sepium</u>	Czechoslovakia
346068	<u>Vicia</u> <u>sepium</u>	Norway
T-07112	<u>Vicia</u> <u>sepium</u>	Norway
T-07113	<u>Vicia</u> <u>sepium</u>	Norway
T-07114	<u>Vicia</u> <u>sepium</u>	Denmark
T-07115	<u>Vicia</u> <u>sepium</u>	Denmark
383469	<u>Zornia</u> <u>dyctiocarpa</u>	Australia
321417	<u>Zornia</u> species	Brazil

Plant Performance

The tables that follow contain all plants in initial observation and seed increase during 1979. Some of the plants evaluated are undoubtedly better adapted to areas other than Beltsville. This should be considered when selecting plants for further tests. Lack of space prohibits stating detailed information. However, more information can usually be supplied upon request.

--In a few cases the source of a plant is not its origin.

--Since seed quality of new introductions is usually not known, poor or no germination may occur at planting. This is also reflected in the remarks column.

--All plants are started in the greenhouse and later transferred to cold frames before final placement in the field.

1979 Performance - Grasses

Code:

A = annual M = medium Sf = soft
 Ab = abundance P = perennial So = solitary
 B = bunch Pr = prostrate Tx = texture
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Example: 150-100x70
 150 = seedhead height
 100 = foliage height
 70 = foliage width @
 foliage height

Pl or T Number	Source	Transplant Date	Habit	Vigor	Foliage				----Seeding Habits----			Measure(cm)	Remarks
					Ab	Tx	Amt.	Fill	Mat.	Date			
<u><i>Agrostis canina</i> L.</u>													
T07120	France	05/78	S	5	1	Sf	7	0	07/09		25-15x30		
<u><i>Alopecurus arundinaceus</i> Poir.</u>													
229529	Iran	05/79		3	1	M	9				30x40		
380664	Iran	05/79		3	7	M	9				15x15		
<u><i>Alopecurus geniculatus</i> L.</u>													
T06641	Denmark	05/79		5	3	M	9				10x15		
T06642	Denmark	05/79		5	3	Sf	9				10x25		
<u><i>Alopecurus pratensis</i> L.</u>													
T06643	France	05/79		3	1	Sf	7	0	08/01		40-30x30		
380670	Iran	05/79		5	7	M	9				15x15		
380671	Iran	05/79		5	7	M	9				20x15		
380672	Iran	05/79		3	1	M	9				30x40		Spreading.
380673	Iran	05/79		5	7	M	9				20x15		
383586	Turkey	05/79		5	3	M	9				10x15		Cultivated out.
<u><i>Ammophila arenaria</i> (L.) Link</u>													
T06650	Norway												Sent to New Jersey.
T06651	Denmark												Sent to New Jersey.
355939	Israel	05/78	PB	7	7								Died.
<u><i>Anthephora pubescens</i> Nees.</u>													
414420	S. Africa	05/79	PB	1	3	M	3	5	08/24		110-50x30		
414423	S. Africa	05/79	PB	3	3	M	5	9	09/04		100-50x40		
414425	S. Africa	05/79	PB	1	1	M	3	7	09/04		150-60x70		
414427	S. Africa	05/79	PB	1	1	M	3	7	09/04		140-60x60		
414430	S. Africa	05/79	PB	1	1	M	3	5	08/08		160-70x70		
414431	S. Africa	05/79	PB	1	1	M	3	7	08/01		170-60x70		Best anthephora.
414434	S. Africa	05/79	PB	3	3	M	5	7	08/17		120-50x35		
414438	S. Africa	05/79	PB	3	3	M	5	7	08/08		120-50x40		
414439	S. Africa	05/79	PB	3	3	M	5	9	09/04		100-50x50		
414443	S. Africa	05/79	PB	1	1	M	3	7	09/11		120-50x50		
<u><i>Brachypodium sylvaticum</i> (Huds.) Beauv.</u>													
		05/79	B	3	1	Sf			07/03		80-40x50		Grown for identification.
<u><i>Bromus erectus</i> Huds.</u>													
380762	Iran	04/76	PB	7	7	Sf	7	5	06/12		70-20x20		
<u><i>Bromus hordeaceus</i> L.</u>													
T06687	Norway	05/79		5	1	M	9				25x25		
T06688	Denmark	05/79		7	3	M	9				20x30		Severe rust, only one plant alive.
T06689	Denmark	05/79		7									Died during hot weather.
T06690	Denmark	05/79		3	3	Sf	9				35x35		
T06691	Denmark	05/79		5	1	Sf	9				30x25		Rust.
<u><i>Bromus ramosus</i> Huds..</u>													
T07132	Denmark	05/79		3	1	H	9				30x25		
T07133	Denmark	05/79		3	3	M	9				30x40		
<u><i>Bromus ramosus</i> ssp. <i>benekenii</i></u>													
T07131	Denmark	05/79		3	3	M	9				25x30		
<u><i>Bromus secalinus</i> L.</u>													
T06692	Denmark	05/79		1	3	Sf	9				30x30		
<u><i>Bromus secalinus</i> var. <i>velutinus</i> (Schrad.) Koch.</u>													
T07134	Denmark	05/79		3	1	Sf	9				30x30		
<u><i>Bromus tomentellus</i> Boiss.</u>													
380763	Iran	04/76	PB	5	7	M	7	7	06/12		90-30x30		
380770	Iran	05/79		7	7	Sf	9				10x15		
380772	Iran	05/79		5	7	M	9				20x25		
380774	Iran	05/79		7	7	Sf	9				10x15		
380775	Iran	05/79		5	3	Sf	5	5	08/04		70-25x20		
383616	Turkey	05/79		7									Died.
383619	Turkey	05/79		5	3	M	9				20x25		Died.
383620	Turkey	05/79		7									
384811	Iran	05/79		7	3	Sf	9				10x20		
384817	Iran	05/79		7	3	M	9				20x20		
384818	Iran	05/79		5	3	M	9				25x25		
384821	Iran	05/79		7	7	M	9				10x10		
384828	Iran	05/79		5	7	M	7	5	07/24		50-30x30		

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<u><i>Calamagrostis arundinacea</i> (L.) Roth</u>									
286474	Japan	05/79	B	3	3	H	9		
325240	USSR	05/79	B	7	7	H	9	30x30	
345968	Norway	05/77	PB	1	3	M	5	25x10	
							7	130-50x40	
							07/03		
<u><i>Calamagrostis neglecta</i> (Ehrh.) Gaertn.</u>									
345973	Norway		S	1	1	Sf	9	20x40	Very rhizomatous.
<u><i>Dactylis glomerata</i> L.</u>									
368881	Portugal	05/79	PB	3	3	M	7	5	08/01
								70-35x40	
<u><i>Dactylis marina</i> Borrill</u>									
T07149	Portugal	05/79	B	3	1	Sf	7	9	08/31
346967	Wales	05/79	B	3	1	Sf	7	5	08/01
346968	Portugal	05/79	B	3	3	M	7	5	08/01
346969	Wales	05/79	B	3	1	Sf	7	9	08/06
346970	Portugal	05/79	B	3	1	M	7	5	08/01
								40-25x30	
<u><i>Deschampsia cespitosa</i> (L.) Beauv.</u>									
T06777	Norway	05/79		1	1	Sf	9	20x25	
383640	Turkey	04/78	B	5	3	M	7	9	07/03
								60-10x20	
<u><i>Deachampsia cespitosa</i> ssp. <i>beringensis</i> (Hulten) Lawr.</u>									
T07150	Canada	05/79		1	1	M	9	20x30	
<u><i>Digitaria mombabana</i> C.E. Hubb.</u>									
406167	Kenya	05/79	B	5	3	M	5	1	08/31
								60-20x30	May be contaminant.
<u><i>Elymus arenarius</i> L.</u>									
345978	Norway	05/79	B	1	3	H	9	35x40	Very blue color.
<u><i>Elymus sibiricus</i> L.</u>									
325315	USSR	05/78	PB	1	1	M	3	3	08/27
326267	USSR	05/78	B	3	7	M	9	80-60x50	
326268	USSR	05/77	PB	5	3	Sf	9	30x30	Cultivated out.
369236	USSR	05/79	B	1	1	H	5	30x35	
							5	65-60x40	
<u><i>Elymus</i> species</u>									
378053	Argentina	05/79	B	7	7		9	15x15	Severe rust, nearly dead.
<u><i>Eragrostis bicolor</i> Nees.</u>									
409817	S. Africa	05/78	PB	3	3	M	7	7	10/06
								80-30x30	
<u><i>Eragrostis lehmanniana</i> Nees.</u>									
T13189	Arizona	05/75	PB	3	3	Sf	7	7	10/15
								100-50x60	
<u><i>Festuca ovina</i> L.</u>									
380849	Iran	05/77	PB	1	1	Sf	3	3	06/18
								60-20x25	
<u><i>Haynaldia villosa</i> (L.) Schur.</u>									
368885	Australia	05/79	B	3	3	M	1	1	08/25
								50-30x20	
<u><i>Helictotrichon pubescens</i> (Huds.) Pilger</u>									
413794	France	05/77	PB	3	7	Sf	5	3	06/05
								85-45x45	
<u><i>Hyparrhenia anthistirioidea</i> (A. Rich.) Stapf.</u>									
331392	Ethiopia		PB	1	1	H	1	7	450-400x150
<u><i>Panicum deustum</i> Thunb.</u>									
410226	S. Africa	05/78	PB	1	3	M	3	3	09/19
								150-90x90	
<u><i>Panicum maximum</i> Jacq.</u>									
409034	Brazil	05/79	PB	1	1	H	9		180-140x240
410251	S. Africa	05/78	PB	1	1	M	3	3	140-80x100
410252	S. Africa	05/78	PB	1	1	M	3	3	150-85x110
410254	S. Africa	05/78	PB	1	1	M	3	3	150-80x100
410255	S. Africa	05/78	PB	1	1	M	1	3	130-75x100
<u><i>Paspalum plicatulum</i> Michx.</u>									
339896	Australia		PB	1	1	M	7	3	07/18
339897	Australia		PB	1	1	M	7	3	100-100x80
								80-80x70	

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					Ab	Tx	Amt.	Fill	Mat. Date		
<u>Piptochaetium Species</u>											
368-91	Australia	06/79	PB	5	3	M	7	1		60-30x30	
<u>Poa spina L.</u>											
284251	Czecho.	05/77	PS	3	3	Sf	3	7	06/12	30-5x15	
<u>Poa kelloggii Vassy.</u>											
T07198	Frnce	05/77	PR	5	7	Sf	5	5	06/12	35-10x40	
<u>Tetrachne dregei Nees.</u>											
410370	S. Africa	05/78	PB	3	1	Sf	5	9	07/24	100-45x50	
<u>Themeds triandra Forsk.</u>											
410373	S. Africa	05/78	PB	3	3	M	5	5	10/15	130-50x70	
<u>Bromus tomentellus Boiss.</u>											
383621	Turkey										No germination.
384816	Iran										No germination.
384820	Iran										No germination.
384822	Iran										No germination.
<u>Bromus species</u>											
314647	USSR										No germination.
<u>Calsmagrostis canescens</u>											
345969	Norway										No germination.
<u>Calamagrostis neglecta (Ehrh.) Gsertrn.</u>											
T06697	Norway										No germination.
<u>Elymus sibiricus L.</u>											
326267	USSR										No germination.

1979 Performance - Legumes

<u>Amphicarpa bracteata</u>											
T13273		05/79		7	7	M	9			10x30	Desd 09/10/79.
<u>Astragalus species</u>											
202149	Argentina		Pr	3	3	M	1	1	05/20	15x30	
383604	Turkey		Pr	5	3	M	9			12x25	
<u>Biserrula pelicina L.</u>											
365646	Spain		Pr	3	3	M	1	1	05/20	10-10x20	
<u>Calopogonium caeruleum</u>											
T06700	Malasia		Pr	1	3	M	9				Vine.
<u>Cassia species</u>											
322325	Brazil		So	1	3	H	7	1	11/01	400-400x300	Small tree, showy yellow blossoms.
<u>Caragana frutex (L.) Koch.</u>											
422453	Germany		So	5	7	M	9				Shrub, showy yellow blossoms.
<u>Centrosema pubescens Benth.</u>											
400293	Rhodesia	Pr	3	3	M	9					Vine.
400294	Rhodesia	Pr	3	3	M	9					Vine.
<u>Coronilla minima L.</u>											
T06740	Norwy		7	7	Sf	9				5x5	
<u>Coronilla varia L.</u>											
T06753	France	05/79	P, R	3	1	Sf	5	1	07/03	25-25x50	
400297	Rhodesia	04/77	P, R	1	A	Sf	3	1	07/15	60-40x100	Looks very good during hot weather.
<u>Crotalaria species</u>											
409730	S. Africa		Pr	3	3	Sf	7	3	07/15	25-25x40	

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<u><i>Desmodium intortum</i> (Mill.) Fawc. & Rendle</u>									
311122	Hondurase		Er	3	3	H	7	3	
312129	Gustemale		Er	3	3	H	9		120-100x100 100x80
<u><i>Desmodium</i> species</u>									
T06786	Mexico	05/79	Er	5	5	H	9		
312169	Mexico		So	5	5	H	9		
319471	Tanzanie		So	1	1	H	9		
322500	Brazil	05/79	So	7	7	H	9		
322501	Brazil		So	1	3	H	9		
322504	Brazil		So	1	1	H	9		
322505	Brazil		So	3	3	H	3	3	100-80x80
<u><i>Glycine soja</i> Sieb. & Zucc.</u>									
163453	N. Carolina		Pr	1	1	Sf	1	1	
<u><i>Glycine wightii</i> (Grsh. ex Wight & Arn.) Verdc.</u>									
317896	Tanzanie		Pr	1	1	Sf	3	1	06/15
<u><i>Hedysarum</i> species</u>									
383660	Turkey	05/78	So	7	3	M	9		15x20
<u><i>Lathyrus japonicus</i></u>									
T06843	Norway			3	3	M	9		20x50
T06844	Norway			3	3	M	9		25x55
T06845	Denmark			3	3	M	9		20x45
T06846	Denmark			3	3	M	9		25x50
T06847	Denmark			3	3	M	9		25x60
T06848	Greenland			3	3	M	9		20x40
T06849	Denmark			3	3	M	9		25x50
345999	Norway			3	3	M	9		20x50
<u><i>Lathyrus japonicus</i> ssp. <i>ecutifolius</i></u>									
T07172	Denmark			3	3	M	9		25x50
<u><i>Lathyrus japonicus</i> esp. <i>maritimus</i></u>									
T06840	France			3	3	M	9		25x60
<u><i>Lathyrus sylvestris</i> L.</u>									
T06855	Norway			1	1	M	5	5	40x100
T06856	Norway			3	1	M	7	5	35x100
282688	Sweden			1	1	M	3	3	45x160
<u><i>Lathyrus</i> species</u>									
316414	Finland		R	3	1	Sf	9		30x60
<u><i>Lespedeza</i> species</u>									
T06920	Korea	05/79		3	3	M	9		120x50
<u><i>Lotus</i> species</u>									
T11323	Turkey		Pr	3	1	Sf	9		15x50
<u><i>Lupinue angustifolius</i> L.</u>									
283637	Portugel		So	5	5	M	7	7	50x30
<u><i>Lupinus ercticus</i> var. <i>prunophilus</i></u>									
T07183	Cenade		So	1	1	M	9		30x50
<u><i>Lupinus luteus</i> L.</u>									
189160	Holland		So	3	3	M	9		50x25
303052	S. Africe		So	1	3	M	3	3	80-60x35
326277	USSR		So	1	3	M	5	3	70-50x25
326278	USSR		So	3	5	M	7	5	50-30x20
326279	USSR		So	1	3	M	3	3	80-65x40
338648	Morocco		So	1	3	M	3	3	75-60x35
368920	Australie		So	3	5	M	9		35x25
368921	Hungary		So	3	5	M	7	5	50-40x25
<u><i>Lupinus nanus</i></u>									
T06970	Denmark		B	1	1	Sf	5	7	65-40x50
<u><i>Lupinus succulentus</i></u>									
T06972	Denmark		So	3	3	M	5	5	60-40x35

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<u>Lupinus species</u>									
T06973	New York		So	1	1	M	5	5	100-50x50 Beautiful tall flower spikes.
<u>Macroptilium atropurpureum</u> (DC.) Urb.									
298625	China		B	1	1	M	1	1	20-20x300
300997	China		B	3	1	Sf	1	1	15-15x200
322575	Brazil		B	3	1	Sf	1	1	25-35x300
322576	Australia		B	1	1	M	1	1	25-20x300
322577	Australia		B	1	1	M	1	1	25x20x170
322578	Australia		B	1	1	M	1	1	20-20x220
322581	Australia		B	1	1	M	1	1	15-15x280
<u>Medicago falcata</u> L.									
236606	France	05/78	B	3	3	M	7	3	07/03 70-70x80
<u>Medicago lupulina</u> L.									
227452	Iran		Pr	5	5	M	3	3	10-10x50
<u>Medicago polymorpha</u> L.									
T06997	France		Pr	3	5	M	5	5	10-10x60
T06998	France		Pr	3	5	M	5	5	10-10x50
<u>Melilotus alba</u> Medik.									
T07025	France	05/78	So	1	3	M	5	3	07/25 140-75x60
T13272	Iowa	05/79	So	3	1	Sf	9		45x75
322560	Brazil		So	1	3	M	1	1	110-80x50
383705	Turkey		So	1	3	M	9		100x50
383707	Turkey	05/78	So	1	3	Sf	5	1	130-100x70
<u>Melilotus alba</u> var. <u>annua</u> Coe.									
325420	USSR	05/79	So	1	3	Sf	3	1	07/25 110-90x100
<u>Melilotus officinalis</u> Lam.									
289314	Hungary	05/78	So	1	1	M	1	1	07/24 170-140x120
314465	USSR	05/78	So	5	3	Sf	5	1	07/03 50-30x90
325422	USSR	05/78	So	7	5	Sf	9		25x25
325423	USSR	05/78	So	7	7	Sf	7	1	35-30x40
325425	USSR	05/78	So	7	7	M	9		20-20x30
325427	USSR	05/78	So	1	1	M	1	1	120-100x80
383708	Turkey	05/78	So	5	3	M	5	1	60-40x30
T11324	Turkey	05/78	So	1	1	M	1	1	120-90x80
<u>Melilotus officinalis</u> var. <u>micranthus</u>									
308068	Czecho.	05/79	So	3	1	M	9		40x50
<u>Psophocarpus tetragonolobus</u> (L.) DC.									
T07058	Malasia		B	1	3	M	9		
T07059	Malasia		B	1	3	M	9		
T07060	Nigeria		B	1	3	M	9		
T07061	Malasia		B	1	3	M	9		
T07062	Malasia		B	1	3	M	9		
T07063	Malasia		B	1	3	M	9		
T07064	Malasia		B	1	3	M	9		
<u>Psoralea bituminosa</u> L.									
238352	Spain		So	5	3	M	9		30x30
283966	France		So	3	3	M	5	5	60-40x40
<u>Stylosanthes fruticosa</u> (Retz.) Alst.									
400309	Rhodesia		B	3	1	M	3	1	25-25x30
<u>Trifolium aureum</u> Poll.									
T07101	Denmark		B	3	1	M	7	5	25-20x25
T07102	Canada		B	3	1	M	9		20x30
<u>Trifolium lupinaster</u> L.									
346041	Norway	04/77	Pr	7	3	M	7	9	15-10x10
<u>Trifolium medium</u> L.									
297381	Norway		Pr	5	3	M	7	9	20-20x40
<u>Trifolium purpureum</u> Loisel.									
233286	Israel		B	3	3	M	7	7	
238370	Lebanon		B	3	3	M	7	7	
238371	Cyprus		B	3	3	M	7	7	5-5x20

1979 Performance - Legumea (cont'd.)

Code:							
A = annual	M = medium	Sf = soft	1 = excellent	Example: 150-100x70			
Ab = abundance	P = perennial	So = solitary	3 = good	150 = seedhead height			
B = bunch	Pr = prostrate	Tx = texture	5 = fair	100 = foliage height			
Er = erect	R = rhizomatous		7 = poor	70 = foliage width &			
H = harsh	S = sod-forming		9 = none	foliage height			

PI or T Number	Source	Transplant Date	Habit	Vigor	Foliage		Seeding Habits			Measure(cm)	Remarks
					Ab	Tx	Amt.	Fill	Mat. Date		
<u><i>Trifolium purpureum</i> Loisel. (cont'd.)</u>											
292482	Israel		B	1	3	M	7	7		40-40x40	
292483	Israel		B	1	3	M	3	7		35-30x30	
292484	Israel		B	1	3	M	9				
<u><i>Trifolium spumosum</i> L.</u>											
T07104	Denmark		B	1	1	M	1	1		30-30x50	
T07105	France		B	3	3	M	3	3		20-20x30	
<u><i>Trifolium subterraneum</i> L.</u>											
T07106	France		B	3	1	Sf	1	5		20-25x50	
<u><i>Trifolium usabarens</i> Taub.</u>											
268349	Belgian Congo		Pr	3	3	Sf	9	.		15x50	Spreads by layering.
<u><i>Trifolium</i> species</u>											
120210	Turkey		A, Pr	3	3	Sf	1	3	07/03	20-15x40	
233284	Israel			3	3	Sf	9				
369145	Australia		Pr	3	3	Sf	3	3	07/03	15-15x30	
369146	Australia			3	3	Sf	3	7			
369147	Australia		Pr	1	3	Sf	3	7	07/15	15-15x40	
369149	Turkey		Pr	3	3	Sf	5	7	07/20	10-10x40	
<u><i>Vicia sepium</i> L.</u>											
T07112	Norway		Pr	1	Sf	9					
T07113	Norway		Pr	1	Sf	9					
T07114	Denmark		Pr	1	Sf	9					
T07115	Denmark		Pr	1	Sf	9					
308119	Czecho.		Pr	1	Sf	9					
346068	Norway		Pr	1	Sf	9					
346069	Norway		Pr	1	Sf	9				40x80	
<u><i>Vicia venosissima</i> Nakai</u>											
317310	Korea	05/78	B	3	3	Sf	3	5	05/79	30-30x50	Very showy flowers & seed pods.
<u><i>Vigna</i> species</u>											
192968	E. Africa	05/78	Pr	3	3	M	9			20x200	
344755	Kenya	05/78	Pr	3	1	M	7	3		20-20x200	
<u><i>Zornia dyctiocarpa</i> DC.</u>											
282569	Australia			7	5	M	9				
<u><i>Zornia</i> species</u>											
321-17	Brazil			7	5	M	7	3		20-20x50	
<u><i>Caragana arborescens</i></u>											
T06711	Czecho.										No germination.
<u><i>Caragana</i> species</u>											
310390	USSR										No germination.
<u><i>Coronilla emerus</i> L.</u>											
T06739	Norway										No germination.
<u><i>Glycine wightii</i> (Graph. ex wight & Arn.) Verdc.</u>											
364849	S. Africa										No germination.
<u><i>Lathyrus cicera</i> L.</u>											
195996	Ethiopia										No germination.
<u><i>Lupinus angustifolius</i> L.</u>											
383692	Turkey										No germination.
<u><i>Lupinus luteus</i> L.</u>											
316288	Hungary										No germination.
<u><i>Lupinus mutabilis</i></u>											
316290	Argentina										No germination.
<u><i>Macroptilium atropurpureum</i> (DC.) Urb.</u>											
322580	Australia										No germination.

1979 Performance - Legumes (cont'd.)

Code:

A = annual M = medium Sf = soft
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 Er = erect R = rhizomatous
 H = harah S = sod-forming

l = excellent
 3 = good
 5 = fair
 7 = poor
 9 = none

Example: 150-100x70
 150 = seedhead height
 100 = foliage height
 70 = foliage width & foliage height

PI or T Number	Source	Transplant Date	Habit	Vigor	Foliage Ab	Tx	----Seeding Habits----	Measure(cm)	Remarks
<u><i>Trifolium campestre</i> var. <i>minus</i></u>									
T07211	France								No germination.
<u><i>Trifolium medium</i> L.</u>									
241117	New Zealand								No germination.
<u><i>Trifolium pilulare</i> Boiss.</u>									
T07103	Denmark								No germination.

1979 Performance - Others

							<u><i>Acacia albida</i> Del.</u>		
407467	S. Africa	05/78	Er	3	5	H	9		60x60
<u><i>Acacia</i> species</u>									
308644	Brazil	05/78	Er	1	1	Sf	9		600x150
<u><i>Achillea millefolium</i> L.</u>									
T06625	Denmark	05/79	R	1	1	Sf	5	5	08/06
T06626	Denmark	05/79		1	1	Sf	5	5	08/22
T06627	Denmark	05/79		1	1	Sf	7	5	09/07
T06628	Denmark	05/79		1	1	M	7	5	08/31
T06629	Greenland	05/79		1	1	Sf	7	7	08/22
<u><i>Achillea ptarmica</i> L.</u>									
T06630	Norway		Pr	7	5	Sf	9		
T06631	Denmark	05/79	Pr	3	3	Sf	3	5	08/31
<u><i>Achillea</i> species</u>									
380613	Iran	05/78	P	5	1	Sf	9		50-20x40
383527	Turkey	05/79		7	5	Sf	9		20-20x20
383528	Turkey	05/79		7	3	H	9		15x20
<u><i>Armeria maritima</i> (Mill.) Willd.</u>									
T06664	Norway		B	5	1	M	9		5x15
T06665	Norway		B	3	1	M	7	5	15-5x20
T06666	Greenland		B	5	1	M	9		5x15
420339	Belgium	05/78	B	3	1	M	5	5	30-10x30
421340	Belgium	05/78	B	3	1	M	5	5	06/12
<u><i>Armeria maritima</i> sep. <i>sibirica</i></u>									
T07124	Greenland		B	3	1	M	7	5	20-5x20
<u><i>Artemisia vulgaris</i> L.</u>									
T06672	Denmark	05/79	B	1	1	Sf	1	7	08/27
<u><i>Asclepias tuberosa</i></u>									
421278	Nebraska		So	7	3	M	9		
<u><i>Atriplex canescens</i> (Pursh) Nutt.</u>									
415852	S. Africa			3	3	M	9		50x30
<u><i>Atriplex hortensis</i> L.</u>									
T06680	Denmark		So	3	3	M	3	3	60-50x20
<u><i>Atriplex hortensis</i> var. <i>rubra</i></u>									
T07126	Denmark	05/79	So	1	3	M	1	3	06/12
<u><i>Atriplex littoralis</i> L.</u>									
T07127	Norway			7	3	M	9		05/24/79 Dead.
<u><i>Atriplex patula</i> L. ssp. <i>patula</i></u>									
T06682	Denmark		Pr	5	5	M	5	1	05/20
T06683	Denmark		Pr	3	5	M	3	1	15-10x30
<u><i>Atriplex sabulosa</i> Rouy</u>									
T07129	Norway		Er	3	5	M	9		30x25

1979 Performance - Others (cont'd.)

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Example: 150-100x70
 150 = seedhead height
 100 = foliage height
 70 = foliage width &
 foliage height

PI or T Number	Source	Transplant Date	Habit	Vigor	Foliage				----Seeding Habits----			Measure(cm)	Remarks
					Ab	Tx	Amt.	Fill	Mat.	Date			
<u><i>Atriplex semibaccata</i> R.Br.</u>													
368852	Australia		Er	1	5	M	5	3			60x20		
368853	Australia		Er	1	5	M	7	3			55x20		
<u><i>Atriplex</i> species</u>													
330671	Israel	05/79	Er	3	3	M	9				40x20		
<u><i>Blackiella conduplicata</i> Aellen</u>													
415865	S. Africa	05/78	Pr	1	3	M	1	3			25-25x100		
<u><i>Calendula officinalis</i> L.</u>													
T06699	Spain		A	1	3	M	3	3			20-20x35		
<u><i>Campanula alliariifolia</i> Willd.</u>													
T07137	Belgium	05/79		1	3	M	9				20x30		
<u><i>Campanula rotundifolia</i> L.</u>													
T06701	Denmark	05/79		7	7	M	9				5x10		
T06702	Denmark	05/79		5	3	M	7	5			30-20x30		
T06703	Denmark	05/79		7	7	M	9				5x10		
T06704	Denmark	05/79		5	3	M	7	5			10x15		
T06705	Denmark	05/79		5	3	M	7	5			40-5x10		
T06706	Denmark	05/79		5	3	M	7	5			45-10x30		
T06707	Norway	05/79		5	3	M	7	5			25-5x15		
T06708	Belgium			7	7	M	9						
<u><i>Campanula</i> species</u>													
T06709		05/79		3	1	M					20x30		
<u><i>Centaurea cyanus</i> L.</u>													
T06720	Denmark		So	1	3	M	1	5			60-55x30		
T06721	Denmark		So	3	3	M	1	7			70-60x30		
T11322	Iran		So	1	3	M	1	5			60-50x40		
<u><i>Cheiranthus allionii</i></u>													
T07143	Norway	05/79		1	1	M	9				20x40		
<u><i>Chrysanthemum coronarium</i> L.</u>													
T06724	Denmark		So	1	1	Sf	3	7			170-165x100		
T06725	Denmark		So	1	1	Sf	5	7			120-115x90		
<u><i>Chrysanthemum leucanthemum</i> L.</u>													
T06726	Denmark	05/79	B	1	1	M	7	7	10/22		50-25x60		
T06727	Denmark	05/79	B	1	1	M	5	7	08/17		40-15x35		
T06728	Denmark	05/79	B	1	1	M	7	7	08/08		50-20x40		
<u><i>Chrysanthemum segetum</i></u>													
T06729	Denmark		B	5	3	M	5	7			45-40x30		
T06730	Denmark		B	3	3	M	3	5			40-35x35		
T06731	Denmark		B	1	3	M	3	3			50-45x60		
<u><i>Chrysanthemum</i> species</u>													
T06732	Korea		So	1	3	M	9				150-140x70		
<u><i>Chrysopsis villosa</i> (Pursh) Nutt.</u>													
T07144	Norway		So	5	5	M	5	3					
<u><i>Cichorium intybus</i> L.</u>													
T06733	Denmark		So	1	3	M	3	3			100-80x30		
<u><i>Corydalis sempervirens</i> (L.) Pera.</u>													
T06754	Denmark		1	1	Sf	3	3				40-30x25		
T06755	Denmark		1	1	Sf	3	3				40-30x25		
<u><i>Epilobium adenocaulon</i> Hausskn.</u>													
T07158	Denmark	05/79	So	1	1	M	3	5	08/07		70-40x20		
<u><i>Epilobium hornemannii</i> Reichb.</u>													
T07159	Denmark		So	3	3	M	3	3	05/20		30-20x20		
<u><i>Epilobium paluatre</i> L.</u>													
T07160	Denmark	05/79	So	3	1	Sf	1	3	06/12		50-30x50		
T07161	Denmark	05/79	So	5	3	M	5	3	07/09		45-45x20		

1979 Performance - Others (cont'd.)

Code:

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Example: 150-100x70
 150 = seedhead height
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 foliage height

PI or T Number	Source	Transplant Date	Habit	Vigor	Foliage Ab	Foliage Tx	----Seeding Amt.	Fill	Habits Mat. Date	Measure(cm)	Remarks
<u><i>Epilobium palustre</i> L. (cont'd.)</u>											
T07162	Denmark	05/79	So	1	3	M	1	3	06/12	60-45x20	
<u><i>Erigeron compositus</i> Pers.</u>											
T07163	Denmark	05/79		5	5	H	9				
T07164	Norway	05/79		5	7	H	7	3	07/12	15-5x5	
<u><i>Gaillardia pulchella</i> Foug.</u>											
T06810	N. Carolina	05/79		1	1	M	1	3	08/08	60-50x90	
<u><i>Gilia achilleifolia</i> Benth.</u>											
T07166	Denmark	05/79	So	3	3	M	3	3	06/18	50-40x50	
<u><i>Gilia capitata</i> Sims.</u>											
T06811	Denmark	05/79	So	3	7	M	7	3	07/25	50-30x30	
<u><i>Hypericum</i> species</u>											
345998	Norway	05/78	R	1	1	Sf	1	3	08/01	50-30x100	
<u><i>Hypochoeris radicata</i> L.</u>											
T06820	Denmark	05/79		3	1	Sf	1	3	08/01	40-15x20	
T06821	Denmark	05/79		3	1	Sf	1	3	07/03	45-10x15	
T06822	Denmark	05/79		3	3	Sf	1	3	08/01	70-20x30	
T06823	Denmark	05/79		3	3	M	1	3	07/03	50-15x25	
<u><i>Iris</i> species</u>											
383670	Turkey			7	7	H	9			15x5	
<u><i>Juncus</i> species</u>											
380883		05/79	B	3	3	H	9			60-70x30	
<u><i>Lobelia</i> species</u>											
T06927		05/79	So	3	3	M	7	5	08/15	50-40x15	
<u><i>Lythrum salicaria</i> L.</u>											
T06974	Denmark	05/79	So	3	1	M	5	5	10/15	50-40x30	
T06975	Denmark	05/79	So	3	1	Sf	5	5	10/15	60-50x25	
<u><i>Malva moschata</i> L.</u>											
T06978	Belgium	05/79	B	1	3	Sf	3	1	07/24	80-70x70	
T06979	Denmark	05/79	B	3	1	M	7	1	09/18	40-30x40	
T06980	Denmark	05/79	B	1	3	Sf	5	1	08/31	65-60x40	
T06981	Denmark	05/79	B	1	1	Sf	1	1	08/01	60-50x50	
<u><i>Marrubium</i> species</u>											
380899	Iran	05/78	B	7	1	M	9			10x20	
<u><i>Mimulus guttatus</i> DC.</u>											
T07027	Denmark	05/79	Pr	1	3	Sf	7	5		10x40	
<u><i>Monarda fistulosa</i> L.</u>											
T07028	Norway	05/79	B	1	1	Sf	9			35x70	
<u><i>Nemophila maculata</i></u>											
T07188	Denmark			3	1	Sf	7			25-20x30	
<u><i>Nemophila menziesii</i></u>											
T07189	Denmark			1	1	Sf	5	5		25-20x35	
<u><i>Nemophila menziesii</i> var. <i>atomaria</i></u>											
T07190	Denmark			3	1	Sf	5	5		25-20x30	
<u><i>Nemophila menziesii</i> var. <i>insignis</i></u>											
T07191	Denmark			3	1	Sf	5	5		20-15x25	
<u><i>Papaver rhoes</i> L.</u>											
T07031	Denmark	05/79	B	7	5	Sf	7	3		40-20x30	
T07032	Denmark	05/79	B	3	1	Sf	1	3	06/19	50-30x40	
T07033	Denmark	05/79	B	3	1	Sf	1	3	06/05	50-40x30	

1979 Performance - Othera (cont'd.)

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 Er = erect R = rhizomatous 7 = poor 70 = foliage width &
 H = harsh S = sod-forming 9 = none foliage height

Pl or T Number	Source	Transplant Date	Habit	Vigor	Foliage Ab	Tx	----Seeding Habita----	Mearaure(cm)	Remarks
<u><i>Penstemon alpinus</i></u>									
T07035	Norway	05/79		5	1	M	9	20x30	
<u><i>Penatemon digitalis</i> Nutt.</u>									
T07038	Pennsylvania	05/78	B	1	1	M	1	07/09	120-75x80
<u><i>Penatemon grandiflorus</i></u>									
T07195	Nebraska			3	3	M	9	15x20	
<u><i>Penatemon tolmei</i></u>									
T07196	Norway			5	3	M	9	10x15	
<u><i>Plantago maritima</i></u>									
T07049	Denmark		B	5	3	M	9	10x15	
T07050	Denmark		B	5	3	M	9	10x15	
<u><i>Plantago maritima</i> ssp. <i>borealis</i></u>									
T07197	Greenland		B	5	3	M	9	10x10	
<u><i>Potentilla recta</i> L.</u>									
T07056	Denmark	05/79	B	3	3	M	3	09/19	50-20x30
314474	USSR	05/78	B	5	3	M	9	20x30	
<u><i>Reaeda lutea</i> L.</u>									
420257	Iran			3	3	H	9	20x40	
<u><i>Rosa speciosa</i></u>									
383745				5	5	H	9	50x30	
<u><i>Salvia cf. verticillata</i> L.</u>									
380900	Iran	05/74	B	1	1	M	5	06/25	50-20x30
<u><i>Sanguisorba officinalis</i> L.</u>									
312470	USSR	05/78	So	3	3	M	5	07/20	90-30x30
<u><i>Saponaria officinalis</i> L.</u>									
T07089	Denmark		So	3	5	M	5	5	45-30x20
<u><i>Silene acaulia</i> (L.) Jacq.</u>									
T07210	Denmark		B	7	3	Sf	9	5x15	
<u><i>Silene armeria</i> L.</u>									
T07091	Denmark	05/79	Er	1	3	M	1	06/12	40-30x20
<u><i>Tagetea erecta</i> L.</u>									
372359	USSR		Er	1	3	M	1	1	60-45x20
<u><i>Tagetes patula</i> L.</u>									
350697	Netherlands		Er	1	1	M	3	1	40-35x40
<u><i>Tanacetum vulgare</i> L.</u>									
T07098	Norway	05/79	Er	1	1	Sf	9	50x75	
T07099	Norway	05/79	Er	1	1	Sf	7	110-40x70	
<u><i>Ceanothus fendleri</i></u>									
T03681	Arizona								No germination.
<u><i>Liguatrum apocynia</i></u>									
341781	Canada								No germination.
<u><i>Lonicera periclymenum</i></u>									
T06933	Denmark								No germination.
<u><i>Oxytropis campestris</i> ssp. <i>sordida</i></u>									
T07192	Norway								No germination.
<u><i>Penatemon digitalis</i> Foug.</u>									
T07193	Pennsylvania								No germination.

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Example: 150-100x70
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 foliage height

PI or T Number	Source	Transplant Date	Habit	Vigor	Foliage Ab Tx	----Seeding Habits----			Measure(cm)	Remarks
						Amt.	Fill	Mat. Date		
<u><i>Phlox</i> species</u>										
T07046										No germination.
<u><i>Rosa</i> species</u>										
370208	Yugoslavia									No germination.
370209	Yugoslavia									No germination.
381013	Iran									No germination.
383745	Turkey									No germination.
<u><i>Saponaria officinalis</i> L.</u>										
T07088	Denmark									No germination.
Undetermined										
383813	Turkey									No germination.

